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THE ACTIVITY SCHOOL

THE ACTIVITY SCHOOL

A Basic Philosophy for Teachers

BY

GUSTAV G. SCHOENCHEN, PH.D.



LONGMANS, GREEN AND CO.

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THE ACTIVITY SCHOOL

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FOREWORD

The modern educational world is one of rapid changes, of grave doubts and high aspirations. Education has more and more become regarded as our only hope for solving all kinds of pressing problems—social, racial, political, ethical—and a multiplicity of schemes has been suggested by Utopian *thinkers*, or exemplified in more or less narrow practice by equally Utopian *doers*. For an educational scheme, even when exemplified in practice, nevertheless remains Utopian for the educator whose problem is public education of large masses of children, when it deviates from the practice of the established, traditional public school only by aping the procedures that have been found applicable to the problems of the highly specialized private school; or when, as is still more frequently the case, the “practice” is manipulated to serve as propaganda for a pre-conceived educational philosophy.

Life teaches us that to separate educational theory and practice is just as impossible as it is to segregate body from mind, induction from deduction, synthesis from analysis. The discomfitures of those educators who have forgotten this fundamental truth, like the struggles of Laocoon, betray their confusion and weariness. Education has need of theory and practice united in an integrated whole, and this is the basic justification for the activity movement or the activity school, which, both here and abroad, has risen to unite educational theory and practice. It is in this spirit that Dr. Schoenchen has described the modern activity school in the following pages, and has proposed its underlying philosophy as a possible “basic philosophy for teachers.” Our American activity school needs clarification and description; it requires a critical foundation wherein theory is checked by practice, in order that it may grow into a

living, organic form of general education and escape the fate of mere evaporation into abstract theory on the one hand, or the equally fatal process of mechanization and ossification on the other. To the task of comparing the theory and practice of the modern activity school Dr. Schoenchen, as one of my students in the School of Education at New York University, addressed himself; the present work is based upon his study¹ of the two greatest modern authorities on activity education—John Dewey and Eduard Burger—which he submitted in partial fulfillment of the requirements for the doctoral degree.

Our John Dewey is known throughout the world, and his educational doctrines are familiar material among American educators to whom he has been both a teacher and an inspiration. But that his ideas have been differently understood and as variously applied by individual American educators is a fact only too patent to the thoughtful observer; one of his ablest adherents, Dr. Boyd H. Bode,² has pointed out inconsistencies in theory and practice in American activity education, and, in defending Dewey from misguided followers who have done their master the disservice of misinterpretation, has exemplified the salty wisdom of an old Serbian saying: "God save me from my foolish friends; my enemies I can deal with myself."

In contrast to Dewey, Professor Eduard Burger is hardly known in this country though his contributions to the theory and practice of activity education are of the greatest importance. Burger is not only Europe's foremost historian and critic of activity pedagogy, but the practical creator and organizer of the best exemplification of activity

¹ Schoenchen, Gustav G., *Eduard Burger and John Dewey A Comparative Study of Burger's Arbeitsschule and Contemporary American Activity Schools as Representative of Dewey's Educational Philosophy*. New York University, 1939, ix, 428.

² Bode, Boyd H., *Modern Educational Theories*, The Macmillan Company, 1927, pp. 351.

Bode, Boyd H., *Conflicting Psychologies of Learning*, D. C. Heath & Co., 1929, pp. 305.

pedagogy as the form of general education in a modern metropolitan school system—that of the Vienna before Hitler. His work and his writing, now so little known,³ should be made available to American educators, and it is hoped that a complete translation of his capital work, *Die Arbeitsschule*, will soon be undertaken. Burger points out that from the time of Plato the idea of learning through self-activity on the part of the pupil has been applied exclusively to hand-work or manual training. This, as the reader of the following pages will learn if he hasn't already known it, is a too narrow view of pupil self-activity, which may be purely mental at times, and which must, even when

³ For instance, no mention of Burger's work occurs in Prof. Michael J. Demashkevich's, *The Activity School. New Tendencies in Educational Method in Western Europe* (New York, Seiler, 1926, pp. 130). On the other hand cf. Beryl Parker, q.v. in the general bibliography, for an American appraisal of Burger's work. For a European appraisal, not listed in Dr. Schoenchen's bibliography cf. J. F. Poeschl, *Der Unterricht in der Volksschule*, Graz, 1931, in four large illustrated volumes.

In addition the following European appraisals of Burger's contribution may be added to the general bibliography :

Eggersdoerfer, Franz X., *Jugendbildung*, Munich, Koesel & Pustel, 1929, pp. 139-363.
 Fischl, H., *Sieben Jahre Schulreform in Oesterreich*, Vienna, 1926, pp. 27.
 Grunwald, G., *Die Paedagogik des zwanzigsten Jahrhunderts*, Freiburg (Breisgau), Herder & Co., 1927, pp. 82-86.
 Herget, A., *Die wichtigsten Stroemungen in paedagogischen Leben der Gegenwart*, Vienna, Hasse, Vol. I, 1922, pp. 51, 70, 90, Vol. II, 1926, p. 56 ff.
 Lay, W. A., *Die Lebensgemeinschaftsschule*, Osterwieck - Harz, Zickfeldt, 1927, pp. xviii-xx.
 Lay, W. A., *Volkserziehung*, Leipzig, Ehlermann, 1921, pp. 47, 220-290.
 Schloen, H., & Wolff, M., *Woerterbuch der Arbeitserziehung*, Langensalza, Beltz, 1930, p. 24.
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 Spieler, J., *Lexikon der Paedagogik der Gegenwart*, Leipzig, Heiden & Co., Vol. II, 1933, p. 560.
 Vogt, L., *Der Arbeitsschulgedanke von seiner ersten Erwachen bis zur Gegenwart*, Beyreuth, Giessel, 1932, p. 8 ff.
 Wolff, A., *Arbeitspaedagogik*, Part I. Langensalza, Beyer & Soehne, 1925, pp. v, 275.
 Zepp, P., *Die Weltkundlichen Jugendbildung*, Munich, Koesel & Pustel, 1931. pp. 26, 37.

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predominantly physical as in the learning of a mechanical skill, have some mental elements if any learning at all is to take place.

Dewey's theory and Burger's practice, in spite of many points of difference are, on the whole, in agreement, and a synthesis between them is not only practical but desirable. This synthesis is a result of the present study ; it is capable and worthy of becoming a "basic philosophy for teachers" ; for the learner its slogan is: "Through self-activity to independence" ;⁴ for the teacher it creates the conviction that "modern pedagogy can be no other than activity pedagogy."⁵

PAUL R. RADOSAVLJEVICH

New York, July 1, 1940

⁴ Pp. 111, 188, 199.

⁵ P. 199.

PART ONE
*HISTORICAL, CRITICAL
PHILOSOPHICAL*

CHAPTER I

ACTIVITY PEDAGOGY IN THE PAST

A : THE PROBLEM STATED

In the introduction to the third edition of his interesting book *The Activity School*,¹ Professor Adolphe Ferriere indicates the need of defining what an Activity School really is, in the very act of refusing to risk a definition:

"What then, it may be asked, is this Activity School which you locate without specifying exact boundaries? I shall not say what it is, for a most excellent reason: As it endeavors to realize above all else the expansion of all that is best in the real nature of the child—of every child—it can adopt no a priori definition, no a priori program, no a priori method. It is not, it is becoming. It will no longer be tomorrow what it was yesterday. It is in process of transformation. It is, as the mathematicians express it, a 'function' of the child personalities which create it. To attempt to force it into a rigid frame would be to misunderstand what is essential in it. The principles which guide it are, as the electricians would say, dynamic and not static; they are currents, not masses. It is neither an unorganized chaos nor a rigid mechanism, but an organism, with all that this concept involves of order and of the unpredictable, of exactness in the general, and of the undefinable in the particular.

In a word, the activity school, for the first time in history, does justice to the child. . . It is more than a reform, it is a transformation."²

These are the words of an enthusiast and a prophet; they hearten and inspire us as teachers and encourage us to continue in the effort constantly to improve the means and methods of education. But in sober truth, if we are to use this activity school we must know what it is; even

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if the activity school be "dynamic" and an "organism," that fact ought not to prevent us from examining it, from describing it, and from attempting, at least, to define it. If we cannot agree on what are the essentials of an activity program, if the entire subject remains one vast welter of conflicting opinions, contradictory practice, fanaticism both pro and con, confusion even in the terminology we employ — then we are in imminent danger of losing through vagueness, confusion, elusiveness, the very advantages which the activity school claims for itself as an instrument of modern education.

To prevent this loss, Dr. Eduard Burger,³ one of the greatest of contemporary, pre-Hitler, Austrian educators, set himself the task of defining the activity school. Agreeing as he does with his confrere, Dr. Ferriere, in regarding the activity school as an organism, not as a static mass of doctrine, he examined the history of education for evidences of the origin of the activity school, and the chaos of conflicting tendencies which go by the name of contemporary educational movements, in order to find out where the activity school had its beginnings, how it grew, and what its present state of development has become. It is his contribution to education to have penetrated into the heart of the matter, to have brought order out of chaos, to have differentiated between what is essential and what is merely incidental, to have shown relationships between activity pedagogy and other educational movements, and to have synthesized all this into an organized body of educational doctrine upon which all progressive educators can agree. These are large claims; by following Burger's lead in the following pages, we adopt them as the purposes and ends of the present discussion. Whether or not we have succeeded in translating aims into definitive achievements remains a question for the reader to determine for himself.

Since the activity school is a growing, a dynamic "organism" it can only be described at successive stages of

its development. The approach must, therefore, be historical, and the descriptive definition at each stage must be tentative.

We must bear in mind, however, that the roots of our American educational practices and principles are derived from European sources, and we must be willing to re-examine these sources to discover to what extent the seeds of the activity school are found in them. Hence, in tracing the evolution of the activity school we must set up tentative definitions; these are, however, not true definitions but merely descriptive statements of important elements of present-day activity education which are found in past educational movements. A second effect of the organic nature of the activity school is that the usual procedure in describing an educational system must be reversed. The logical way of describing the system of any of the great educators, say Herbart for example, would be to state the educational principles which he held valid, from them derive his aims, and from the aims in turn derive curriculum, course of study, method of teaching, etc. But activity pedagogy differs from Herbartianism and other completed educational systems in that it did not start with principles but grew out of practice. The principles—also the aims—are the result of a long gestation of educational ideas, practices, experiments, and applications of educational intuitions. It is, therefore, a more satisfactory procedure to reverse the usual logical order and examine the activity school historically: how it grew from small beginnings in the rather remote past (educationally speaking), how it reacted, like an organism, by adaptation to successive differing environments, and how it absorbed other educational movements, so that now it lays claim to being not a mere subdivision of education but education itself “with no qualifying adjectives prefixed.”⁴

In tracing the origin and development of the activity school we shall, therefore, follow a chronological or genetic order. Taking each one of the significant educators, or

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educational movements, in turn, we shall note what he or it contributed to the activity school as we now have it. Each of these permanent contributions will be stated as a partial description of the activity school; each will be numbered consecutively in the order in which it appears in this discussion, and set off by means of indentation. Finally, the whole will be rearranged and summarized.

B: SOWING THE SEEDS — FIRST PRINCIPLES OF ACTIVITY

PEDAGOGY: REALISM

1. Comenius

John Amos Comenius (1592-1670) planted the first seed of activity pedagogy⁵ by advocating that the pupil be required to do things for himself. In his *Didactica Magna* he enunciated a three-fold method of instruction—for the eye, the tongue and the hand. In his *Schola Pansophica* he repeats this dictum and calls the forms of instruction *ratio*, *oratio* and *operatio*. In other words, he advocates pupil activity of the body. From Comenius, then, we can take our first partial statement of what an activity school is.

1. An activity school makes use of pupil activity as a principle of instruction.

It will be noted, however, that this activity is not self-activity as we understand the term. On the other hand, pupil activity is definitely a principle of method, that is, a rule or norm to be followed in order to arrive at a pre-determined goal.

2. Rousseau

In Jean Jacques Rousseau (1712-1778) we find expressed so many fundamentals of the activity school that Rousseau may well be called its father. In his famous *Emile* he advocates manual training of several kinds for its utilitarian value, for its spiritual value, and for its educational value in leading to reflection and planning. He bases instruc-

tion on the instinct of the child, and would arrange instruction so as to correspond with the child's developing and expanding interests. He sees experience and pupil activity as the chief means of education, thus making pupil activity of far greater importance to education than Comenius indicated. He sets himself against verbal teaching, and emphasizes training of the senses and learning through the senses. Finally, he sees education not only as preparing for life, but also as living; although Emile had no companion, Rousseau realizes that education must be social as well as individual, and he advises that Emile be allowed to visit factories and, through direct observation, to learn to appreciate the importance of social interdependence. From this most condensed summary of Rousseau's teaching, we garner as factors for the activity school the following seven dicta:

2. The activity school advocates many forms of manual training for their cultural values.
3. The activity school arranges the subject matter of instruction in accordance with the natural interests of the child.
4. The activity school advocates direct experience as preferable to vicarious experience.
5. The activity school is opposed to merely verbal teaching or indoctrination.
6. The activity school emphasizes the need of training the senses so that learning through the senses may be furthered.
7. The activity school would modify the learning process so as to take account of individual differences among the pupils.
8. The activity school recognizes that education is life, and must therefore be lived in a communal environment.

3. *Others*

Rousseau and Comenius are educationally the giants of the age of realism, but there were others who also contributed. The activities of the scientific realists from

Bacon to Newton—250 years of scientific discovery—had their effects upon education, as might be expected. This influence was chiefly antagonistic to verbalism in that it advocated experimentation and the use of the inductive method to increase our store of facts. None of these lesser figures,⁶ however, made suggestions for teaching that differed in kind from those put forth by the fertile intellect of that teacher of teachers who never himself taught—Rousseau. To Rousseau, therefore, belongs the undoubted distinction of being the father of modern pedagogy.

C: GERMINAL PERIOD—THE ACTIVITY SCHOOL TAKES ROOT

The important names of this period are those of Salzmann and Kindermann—the former as propagandist, the latter as organizer and inspirer of activity teaching.

1. *Salzmann*

Christian Salzmann (1744-1811) wrote a book which he called "*The little Book of the Ants—being directions for a sensible education of the educators.*" The title is a reference to that passage from Comenius in which he refers to the children as "little ants, that must be always crawling about, carrying, hauling, erecting, demolishing"; and the little ants are the children—educators who educate themselves. This title is the first hint of what later became an expressed aim of activity education, to make the child independent through his own activity. In this book Salzmann stresses the importance of producing something for one's self and through one's individual effort. He also urges manual training for the sake of bodily health and spiritual development. But his chief value to the activity school lay in his propagandist writings, addressed to the laity and explaining, on the basis of personal experience, what the schools were trying to do. We cannot credit him with having made a new step in activity education, but he was a useful man in his field.

2. *Kindermann*

Ferdinand Kindermann (1740-1801) first applied the principles of activity education to vocational training, thereby creating the vocational school. He found that children were taught useless things, but were not taught the most necessary. He found teaching poor, and saw in this the cause of much laziness, poverty, mendicancy and irreligion. He recommended industrial training, not only for its economic value but also on the basis of its value for increasing human happiness. He struggled against great odds, but he won the children over to his program, and, through them, their parents. He believed in mild discipline, and allowed the children to talk or sing at manual work. This freedom, together with the alternation of academic and industrial subjects, made children love their school. Not as a polemic writer, but as an organizer and agitator, he takes an important place in the history of activity pedagogy. He represents several steps in advance.

9. The activity school believes that one of the proper aims of education is vocational efficiency.
10. The activity school advocates a natural form of discipline based on children's interest in their work, and operative through social control; it is opposed to order, imposed upon the pupil from without by the teacher.⁷

D: PHILOSOPHY WATERS THE ROOTS

1. *Fichte*

Johann Gottlieb Fichte (1762-1814), the philosopher of ethical idealism, did much to further the activity school. For Fichte, matter was but a function of spirit; the spirit was absolute, but it was also operative or active. Hence doing is eternal, and being is merely a function of doing. "Not mere knowledge, but doing according to your knowledge is the law of your being,"⁸ he says. Doing, or activity, is based upon an innate, absolute instinct for self-activity; hence education is the development of this instinct, and the

activity of the pupils the chief instrument of education.

The importance of this for the activity school cannot be overestimated. Activity has heretofore been recognized as instinctive, but Fichte shows that it is not only that, but an insistent urge—a drive. Activity has heretofore been regarded as *one* of the means of education; but for Fichte it is the *most important* means. Finally, activity is not only a subject in the curriculum, but has become also a method of instruction.

In Fichte we also find explicit an important aim of our activity school—the aim to make the child independent. Through independence the child adds to his moral stature; hence vocational training should be given him on the ethical ground that it will enable him to achieve this independence; finally by being self-sufficient, by being independent, the individual will be enabled to contribute to the independence of society. In other words, pedagogical activity is morally important, not only from the stand-point of the individual but also from that of society.

From Fichte, then, we take the following:

11. The activity school regards pupil activity as the *chief* means of education.
12. The activity school uses the principle of activity not only as a subject (manual training) but also as a method of teaching.
13. The activity school advocates many forms of manual training for their moral value.
14. The activity school advocates self-activity as a means of achieving self-independence.
15. The activity school recognizes the need of training the individual for membership in a society.

2. Herder

Johann Gottfried Herder (1744-1803) contributed nothing original to the activity school but powerfully reinforced what had already been said and done. He decried verbalism, emphasized the practical and utilitarian

in education, advocated training of the senses and knowledge of science, especially applied science, and supported Fichte in his demand for an education which would lead to independence on the personal side, and to social efficiency from the standpoint of society.

3. Goethe

Johann Wolfgang von Goethe (1749-1832) emphasized the importance of manual training in his *Wilhelm Meister's Wanderjahre*. At first there should be unspecialized manual training, then later, as the special abilities of the individual manifest themselves, there should be specialization along the line of personal aptitudes. Goethe saw little distinction between the work of the artisan and the artist; their product differed in degree rather than in kind. For him, also, thinking and doing are eternally reciprocal and can exist only together, as inhalation and exhalation exist together. Finally, he teaches that happiness is achieved in altruistic labor for the good of all.

In all of this he adumbrates future progress for the activity school. His ideas concerning the intimate relationship between thinking and doing found fruition in the work of the psychologists who later laid the psychological basis for the activity school. His thoughts concerning unspecialized manual training to be followed by specialized manual training foreshadow the adoption of an undifferentiated basic course (integrated course of study) and the steps which will later be taken to secure individualization of instruction. His ideas concerning the relationship between the product of the artisan and that of the artist were later elaborated by those educators whose interests lay in aesthetic education. Finally, his ethical teaching in *Faust, Part II*, regarding happiness and altruism is destined to become incorporated as an ethical motive or aim in the activity school. In short, while we cannot credit Goethe with adding directly to the program of the activity school, we must record the fact that his extremely fertile ideas have

in them the seeds of many improvements which were made later by the builders of activity pedagogy.

E : PERIOD OF RAPID GROWTH

i. Pestalozzi

In Johann Heinrich Pestalozzi (1746-1827) we find combined the writer, the philosopher, the statesman, the sociologist, and the teacher of the very first rank. The result is that the activity school owes more to Pestalozzi than to any other educator; indeed activity pedagogy has been described as a return to true Pestalozzianism, and it would be well for contemporary educational writers, who differ from Pestalozzi, carefully to examine their grounds for difference. Coming after Comenius and Rousseau, Pestalozzi found that these mighty predecessors had anticipated him in many respects; but he nevertheless remains the greatest figure in activity pedagogy because he not only recombined the teachings of the founders of activity pedagogy in ways which make them seem almost like original contributions, but also because he actually illustrated these teachings in practice.

To summarize Pestalozzi's influence upon activity education is a task so great that volumes would have to be written to do it adequately; with the space available it is possible only to hit some of the high spots, and to indicate in passing whether they were original with Pestalozzi, or whether he was, in fact, indebted to his predecessors. Among these predecessors we include Fichte—unfairly, of course, for Fichte was a contemporary, and Pestalozzi's influence upon Fichte's educational views was greater, perhaps, than Fichte's upon Pestalozzi.

The central idea of Pestalozzi's pedagogy is his concept of the nature of man as having two aspects, the individual and the social. This fundamental concept combines the educational doctrines of Rousseau, who emphasized the individual, with those of Fichte, who stressed the social side.

This is, of course, also the central idea of modern activity pedagogy ; and with this idea in mind we can note the following points of Pestalozzian doctrine with which modern activity education is in complete agreement.

- a. Instruction arises out of the daily work—not vice versa. (Partly from Rousseau.)
- b. Verbalism is condemned—(Rousseau).
- c. Vocational training is advocated to insure the pupil's independence (Rousseau), and to increase his earning capacity (Kindermann). But this is only a secondary aim of education.
- d. The chief aim of education is to train for human living (Fichte); hence education is not only preparation for life, but itself is life (Rousseau). Life itself educates (Rousseau).
- e. Manual training should be combined with academic subjects (Fichte). This helps to make school a social community. (Rousseau.)
- f. Manual training is a means of training through self-activity. This is original with Pestalozzi, and is the very keynote of activity pedagogy. Heretofore, when educators had used the word "self-activity," they meant merely pupil activity, activity of the pupil himself. When they meant what we express as self-activity, that is, an activity initiated and motivated by the pupil himself, they used the word "spontaneity." Pestalozzi was the first to suggest that the spontaneous activity of the pupil should give direction to instruction.
- g. Such self-activity is the means of universal culture (Fichte).
- h. Through manual training the senses are trained (Rousseau), thereby increasing the store of knowledge (Comenius), and leading to the thoughtful life (Goethe).
- i. Training for career and training for life should be thought of as synonymous (Rousseau—later Kerschensteiner). Vocation makes man a part of a work-community (Fichte—later Kerschensteiner).
- j. The object lesson is a fundamental method for acquiring all knowledge (Comenius).

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- k. From the object through perception into consciousness (Comenius). From concept through expression back to the object. This return through expression was original with Pestalozzi, for expression includes physical as opposed to mere oral reproduction, and hence is a step further than the step of *oratio* of Comenius. Pestalozzi emphasizes the importance of the object lesson for the activity school by pointing out that perception *per se* is passive, but that formation of a concept is active, requiring effort, will, force. He here lays the groundwork for later activity pedagogues, who include mental activity in the general field of pedagogical activity. He also adumbrates the later work of activity psychologists, who trace activity through the three departments of the mind — the ideational, the judgment, and the interest-volitional.
- l. Train all the senses, not merely the eyes (Rousseau — later Lay).
- m. Manual training is important as a means of completing the concept (Fichte). Changes in the outer world effect changes in the inner (Fichte — later Dewey). Hence the hand serves as a means of developing the thought (Fichte, Rousseau).
- n. The didactic value of activity resides in the fact that activity is the expression of an innate, universal drive (Fichte).
- o. Children should not be told to sit still. Artificial "order" is contrary to the nature of the child; control so exercised by the teacher is like applying a brake to a spinning wheel.
- p. The value of doing a thing by hand, that is, by experiment, is that it is either right or wrong. It works or it does not work. Hence experimentation trains the judgment, discovers objective truth, and counteracts the effect of emotion upon thinking. (The seeds of this idea are found in Rousseau, but, as Rousseau did not carry it out to its conclusion, this must be credited as an original contribution by Pestalozzi to activity pedagogy. Later on, Dewey and Lay elaborated this principle.)
- q. Education should develop all our resources (Fichte — later Herbart). Hence manual training is not merely a

specific method but of universal applicability as a principle of pedagogy.

- r. Manual training is valuable not only for developing technical or mechanical (manual) skill, but, being expressional, it also is connected with intelligence and sense of beauty. This is another form of Pestalozzi's original contribution—(see *k* above). In the former case he traced the *object lesson* back through expression to the object, showing that it thereby affects ideation, judgment and will. Here he shows that *manual training* does the same.

From the above summary it may be regarded as established that Pestalozzi is a giant among activity pedagogues. His original contributions to the activity school are:

16. The activity school is organized on the basis of pupil self-activity.
17. The psychological basis of the activity school is the truth that pupil self-activity affects the three categories of consciousness—the ideational, the judgment, and the interest-volitional.
18. The activity school values experimentation as a means of education because experimentation applies a pragmatic test to ideas.⁹

2. *Froebel*

August Friedrich Wilhelm Froebel (1782-1852) is likewise a figure of great importance in the history of the activity school. Froebel stands midway between Pestalozzi and Fichte, having taken from the former the principle of sense training, and from the latter the principle of the importance of doing. These two principles he combines in so characteristic a way that he makes an original contribution to the activity school. Through self-activity sense perception takes place; self-activity, or doing, should therefore at all times go hand in hand with sense training (*object lesson*). For in gaining sense impressions, not only is the eye involved, but the object to be sensed must be

heard, felt, tasted, weighed, played with, manipulated—in a word, a complete sensing of an object involves making use of as large a number of different sense appeals as possible. Knowledge gained as a result of such *Anschauung*¹⁰ will be valid, and will affect thinking, judgment, and the ethical and aesthetic factors in the mind. From this point of view, self-activity, or doing, leads to feeling and knowing, and is therefore the dynamic factor in education.

Another contribution of Froebel to the activity school is his recognition of the pedagogical importance of play. Play has for its purpose the activity itself; when the purpose of the activity merges into the production of the activity, of an end product of such activity, we say that play merges into work. It is, therefore, at this point that instruction begins; the duty of the instructor is to blend into the spontaneous self-activity of the child whatever tends toward the development of the child. In play, as in work, the child automatically learns the value of social cooperation.

A third contribution to the activity school is Froebel's acceptance of the so-called "Culture-Epoch" or "Recapitulation" theory, which holds that the individual recapitulates the experience of the race. This theory rests on some questionable evidence, it is true; furthermore, it is not essential to the activity school. However, most educators at present accept it, especially with the modification that Froebel himself advocated. This is that while each man in himself recapitulates the experience of the race, each man, nevertheless, differs from every other in that the representation of the recapitulation is different. In other words, this theory need not be at variance with the observed facts of human individualization.

The practical value of the theory for educators lies in the fact that it gives them a hint as to how to arrange the materials of instruction so as to make them conform to the expanding, developing powers of the child, rather than reversing the process and fitting the child to the curricu-

lum. Such favorable arrangement of the materials of instruction is called the "psychological order" in contrast to the older "logical order" of arrangement. The underlying principle is far-reaching in its effects, for it not only determines the order in which whole curricular subjects are arranged with reference to each other, but also regulates the arrangement of specific parts of any given subject. To illustrate: the traditional school relegated science to the seventh or later years on the logical ground that, as science is truth that can be mathematically expressed, the child must have a fairly extensive working knowledge of mathematics before he may take up any form of science. By contrast, the activity school recognizes that some scientific information is part of the daily life of the child; that the weather, for instance, affects him long before he can reason mathematically. Some simple forms of science instruction therefore are found in even the primary grades of the activity school.

The contrast between the traditional school and the activity school can be further illustrated by the application of this principle of arrangement within the curricular subject. The traditional school holds, logically, that geometry should follow arithmetic and algebra because a knowledge of these two is necessary for the understanding of most geometry. The activity school introduces some geometry into the elementary curriculum. A still more deadly contrast occurs when the traditional school arranges the materials of instruction within a curricular subject—say, science—logically and deductively. The result is that the unfortunate pupil, introduced to science instruction for the first time, is confronted by such topics as the properties of matter instead of learning how to fix the buzzer or why the radiator in his classroom is cold even though the janitor has plenty of steam in the boilers.

A final contribution of Froebel to the activity school is one for which he is partly indebted to Rousseau. Rousseau stressed the importance of arranging subject matter in

accordance with the growing interests and powers of the child. Froebel carries this principle further and states it explicitly: The development of the child at any particular level is conditioned by his development at lower, preceding levels. In this principle Froebel crystallizes several important pedagogical considerations: that, for the child, education is life; that the right of the child to live his own life at his own state of development cannot be gainsaid; that the materials of instruction must be fitted to the child, not the child to them.

Froebel's renown suffers from the fact that his work has been so completely identified with the kindergarten that he is often overlooked as an educator whose pedagogical principles have a universal applicability. Indeed it has been pointed out that the Froebelian technique of the kindergarten has been applied with greatest success to the university through the laboratory method in the teaching of advanced science courses. If the activity school of the present time is not aware of its debt to Froebel, it can only be because his ideas have been so completely successful that they are accepted as axiomatic.

We summarize Froebel's original contributions in the following four propositions:

19. The activity school maintains that sense training and self-activity must go hand in hand, pedagogically.
20. The activity school recognizes the pedagogical importance of play.
21. The activity school tentatively accepts the recapitulation theory.
22. The activity school recognizes that the development of the child at any level is conditioned by the development of the child at lower levels.

a. *The Froebelians*

The followers of Froebel,¹¹ of whom Erasmus Schwab (d. 1917) deserves more than a mere note, showed how activity teaching could be put into actual practice. Schwab

wrote a book on the activity school as an integral part of the public school system in which he proves that the traditional "learning" school has failed to come up to expectation, and, after discussing the reasons for this failure, suggests that instruction be made more practical, and that the activity school be made a part of the public school system. He advocates three types of special activity schools—one for boys (industrial), one for girls (industrial), and one for both sexes ("garden-school," for agriculture, etc.). In the regular public schools he would combine academic instruction with activity pedagogy, and he sees, as an advantage in the arrangement, the fact that teachers will thereby become teachers of "natural" science. In other words, without actually saying so, he implies that increased motivation in all subjects will take place. He advocates an experiential course of study, experimentation to go hand in hand with study, all work to be undertaken in a social situation. Such stimulation to self-activity will lead to self-independence and the development of personality. Bright students will help the weaker, and both will benefit in character development from the contact. In his opinion the Froebelian method of the kindergarten is superior to the methods in the traditional grade schools, and he would, therefore, adopt Froebelian techniques for use in the grades so that the harmonious development of all the child's capacities may result. The emphasis throughout this book is on the cultural, rather than the utilitarian, value of activity education. In other words, in all essentials he agrees with modern activity school practice.

F. THE ACTIVITY SCHOOL SPREADS TO OTHER COUNTRIES

But in the meantime, activity pedagogy had become important in other countries. Under the influence of the Finnish educational reformer, Uno Cygnaeus (d. 1888), Finland adopted activity pedagogy in 1866 for inclusion in all elementary public schools and in seminaries for the training of teachers. This was done not only because of

its economic value—Finland is a poor country, and its people mostly manual workers—but also because of its acknowledged cultural value.

1. *The Swedish Sloyd*

The Swedish “sloyd system,” established in 1875 by the philanthropist, August Abrahamson (d. 1898) and developed by his nephew, Otto Salomon (d. 1907) applied activity principles to the training of teachers in the Pestalozzian and Froebelian tradition. The young seminarists studied pedagogy, language, mathematics, nature, drawing and sloyd. But contrary to present principles of activity pedagogy, this last subject, which originally consisted almost wholly of woodwork, was prescribed in the minutest detail, the seminarist constructing a series of prescribed objects which were to serve as models for his pupils after he became a teacher. The work was carefully graded, and each successive model introduced new difficulties requiring the mastery of additional tools and techniques. The prospective teacher was not allowed to exercise his own choice until his final model, which was a piece of original work, and which served the double purpose of demonstrating his mastery of his art and at the same time, by remaining in the possession of the seminary, of increasing the collection of original models which could be used for purposes of study by later seminarists. The rigid sloyd system, however, tended to discourage freedom of discussion, and Salomon himself was rather impatient of criticism. However, the instruction in activity pedagogy and the emphasis placed on this type of manual training make the sloyd system, continued after the death of its founder by the Swedish government, an important milestone in the history of activity pedagogy. Gradually the system spread over Norway and Sweden; it became more liberal, and other forms of manual training were added. The libertarian trend became associated with the slogan “Advance beyond Naas.”¹² At present sloyd is not compulsory in Sweden,

but is encouraged by the government; in Norway it has been compulsory in public schools since 1896.¹⁸

2. Denmark

The Danes introduced activity pedagogy about 1880 under the leadership of Adolph von Clausen-Kaas (d. 1906). His aim was primarily utilitarian in that he hoped, through various basic manual skills, to increase the earning power of the peasants; he thereby takes a stand closer to Kindermann than to Pestalozzi and Froebel. But he is also associated with the German educators in their appreciation of the didactic value of activity pedagogy, for, as he says himself, his secondary purpose is to improve methods of instruction in all subjects, by heightening the child's interests, by making education a happy experience for the child, and by making the learning process easier through greater appeal to the senses and less to mere rote memory. He also emphasized the need of teacher-training in his system.

3. Other European Countries

In the other European countries activity pedagogy before 1900 was less successful. In France, the *Écoles Maternelles* follow the Froebelian kindergarten system, and since 1882 instruction in the public school is according to the principles of activity pedagogy—in theory at least. However, there is so close a tie-up between all forms of manual training and mathematics—chiefly geometry—that the instruction has become quite abstract. However, from 1880 to 1894 Paul Robin headed an orphanage at Cempuis, which was a fine example of activity pedagogy in actual operation; unfortunately the system was abandoned.

Herbert Spencer (1820-1903) is largely responsible for the form and nature of education in England. Although he is not an advocate of activity pedagogy as such, he nevertheless has done considerable to further the cause. His educational system, based on his classification of the

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five types of human knowledge arranged according to their value, is intensely pragmatic — like the Philanthropinists, and like Dewey ; furthermore he approaches education from the sociological viewpoint — like most activity pedagogues and, again, like Dewey. The six pedagogical principles which Spencer advocates — from simple to complex ; from concrete to abstract ; according to the culture-epoch theory ; from empirical to theoretical ; self-discovery of materials of learning by the children ; motivation based on the child's natural interests — have all been previously stated by Pestalozzi and boil down to the demand that education should follow the natural development of the child, in choice and arrangement of subject matter, and in methods by which this subject matter is to be taught. While most of the effect of Spencer's teaching is to be found in various private schools, especially in the newer "City and Country Schools," the government-supported free elementary schools have been giving instruction in "hand and eye training" since 1890. Above the fourth year this training becomes specialized manual training. In the "Country Schools" or "New Schools"¹⁴ the teaching of manual training broadens out into many different types, frequently toward agriculture. But whether in the so-called "public schools," the free schools, or the private country schools, English activity education is characterized by practical ends, complete informality, and considerable individualization of instruction.

4. *America*

In America, activity education is not completely the work of John Dewey — whose contribution to education will be summarized elsewhere — but rests at least equally on a foundation of the spirit and national characteristics of our people. We early took over the Froebelian technique for kindergarten and some manual training for the upper grades of the elementary school. But it remained

for our great negro educator, Booker T. Washington, to demonstrate that the manual training subjects had not only great practical utility but also high cultural value. Though Washington's chief aim at Tuskegee was to make the negro self-supporting through vocational training, he never forgot his other aim—to elevate the spirit of the negro by broadening his cultural life. How well he accomplished these aims is shown not only in the individual success of graduates of Tuskegee but also in the spread of his ideas into other institutions for negro education. Indeed it would not be an error to ascribe the rapid expansion of our characteristically American manual training high schools, originally founded by Professor Woodward in 1879 in St. Louis, in part, at least, to the success of the Tuskegee Institute. In these manual training high schools from one-third to one-half of the time is devoted to manual training of all kinds. The instruction is typically activity pedagogy; on graduation, the student is admitted to a technical college which, e.g., Massachusetts Institute of Technology, also follows an activity type of teaching.

Like the English form our activity school is characterized by being practical, informal and, to a considerable extent, individualistic. We have been more successful than the English in making use of pupil self-activity and in arranging material in conformity to the psychological factor. The method of the kindergarten—experimentation, direct observation, actual handling and doing—has been applied with great success at the two ends—the kindergarten and the university—and there is every indication that it will be extended to the levels lying in between.

G. THE PERIOD OF TEMPORARY ECLIPSE

i. *Herbart*

Johann Friedrich Herbart (1776-1841) is the only German philosopher who regards pedagogy as the most important outcome of his philosophy, for whom pedagogy is

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the field for applying and testing out philosophical ideas.¹⁵ For him—as for his followers—the concept is basic in all psychic activity; the thought comes before and causes the act. This being his major premise, he consistently emphasized concept building, the intellectual in education, and subordinated activity pedagogy and manual training to a secondary place where the concept may be concretely applied if one wishes to do so. The Herbartians, therefore, closed the door for advances in activity pedagogy; from 1857 to 1902 a series of nation-wide teachers' conferences in Germany reflected the Herbartian distrust of the activity school, with the result that advances in activity pedagogy during this time were made in countries other than Germany.

Herbart never wrote directly on the subject of activity pedagogy, wherefore his attitude toward forms of activity teaching must be collated from various writings on other subjects. Recognizing a twofold value to the human hand—first, as a sense organ through which percepts and, through these, concepts may be gained; secondly, as means of self-expression—Herbart advocates manual training in workshops in the secondary schools, with the warning that the vocational side of such instruction must be subordinated to the cultural. For manual training is pedagogically useful chiefly because, through it, better sense impressions are possible, hence better percepts and concepts; it trains the mind as well as the body. The technical or manual ability (dexterity) in which it results is chiefly valuable because it enables the mind to impress its will or its concept upon the outer world (expression).

In addition to its value as a means of training the mind, manual training also helps in developing the character. Herbart divides discipline into negative (inhibitory) and positive (actual character training); and finds manual training useful in the former category in that it fosters industriousness, the opposite of idleness, which leads to evil; and in the latter category in that, through industriousness,

the pupil is trained in regulating his impulses, and gets practice in acting according to a program of controlled purposes. In all of this, however, there is nothing which has not already been said by his predecessors, no new development in the direction of activity pedagogy. Herbart saw the dilemma of formal, or book, instruction, but never drew the logical conclusion, to change the method of instruction in the formal subjects so as to make it approximate the method in the manual subjects.¹⁶

H. SUMMARY

From this brief sketch of the factors favorable to the development of activity education from Comenius to Herbart, but omitting consideration of Twentieth Century eclecticism, we may draw the following summary statements:

1. The structure of our traditional educational system is a combination of Pestalozzianism and Herbartianism.
2. The activity school is not the invention of a single educator or group of educators. On the contrary, principles of activity pedagogy have been enunciated and put into practice by all educators from the days of Comenius on. The activity school must therefore be studied as an organism is studied—as a dynamic and changing body of educational theory and practice which, at various times, is in various stages of development.
3. We have noted twenty-two distinct forward steps in the history of the development of the activity school. The determination of what is a distinct "forward step" must, of course, be arbitrary, but the purpose has been to keep the number of such steps down to a reasonably small one. These advances are here collected into a summarized table which, taken together, might serve as a description of the stage of development attained by the activity school movement, before the beginning of the present-day eclectic educational tendency. For the sake of conciseness, only single-word mnemonic symbols are used to stand for each of the descriptive steps.

List of Activity School Principles found in Classic Educators

1. <i>Pupil activity</i>	Comenius
2. <i>Manual training</i>	“
3. <i>Subjects arranged according to pupil interests</i>	Rousseau
4. <i>Direct experience</i>	“
5. <i>Not verbal</i>	“
6. <i>Sense training</i>	“
7. <i>Individual differences</i>	“
8. <i>Education is life</i>	“
9. <i>Vocation</i>	Kindermann
10. <i>Discipline</i>	“
11. <i>Pupil activity is chief means</i>	“
12. <i>Manual training a method</i>	“
13. <i>Manual training a form of character training</i>	Fichte
14. <i>Aim is independence</i>	“
15. <i>Training for social life</i>	“
16. <i>Pupil self-activity</i>	Pestalozzi
17. <i>Self-activity affects three mental categories</i>	“
18. <i>Experimentation as pragmatic test</i>	“
19. <i>Dualism of sense training and self-activity</i>	Froebel
20. <i>Play</i>	“
21. <i>Recapitulation</i>	“
22. <i>Development at each level conditioned by development at lower levels</i>	“

CHAPTER II

RECENT MODIFICATIONS OF ACTIVITY PEDAGOGY

Assuming that the reader who has followed the discussion thus far accepts the central idea of the first chapter — namely, that the roots or principles of the activity school are to be found in the past in the work of the European and the other educators who have been considered seriatim — it becomes our next task to discover how the various educational movements of recent times have clothed in the flesh of actually existing educational organizations the skeletal framework of activity pedagogy represented by the twenty-two principles of activity education extracted from our study of educational history. But a word of explanation must be made to the American reader of this book, for whom the present work is intended. Our problem in this chapter is to describe and demonstrate the type of activity education which the foremost proponents of activity education in Europe have evolved, so that we may later compare their product with American practice and consider the question whether in the European activity school, which functioned with great success before Hitler, we can find anything that fits our needs; whether they have solved problems which still beset us; whether, in short, the European activity school has a practical applicability to the American educational scene.

In order that our American educator may be in a position sympathetically to weigh and consider these proposals, he must do two things: first, he must be willing to acquaint himself with some of the leading European forms of contemporary educational eclecticism, because these forms can be observed in actual practice and definitely affected the development of European activity education; secondly, the American educator must be willing to omit consideration

of John Dewey's educational teachings until after the picture of the evolution of European educational thought has been presented. The main intention of the present work is to give a description of an activity school suitable to the United States; Dewey has made his own ideas known to us in a lengthy and widely read list of writings on educational topics. We assume, therefore, that the American educator is so well versed in Dewey's educational ideas that confusion between European proposals and Dewey's will not occur; that a detailed exposition of Dewey's educational doctrines need not be furnished.

The present chapter, therefore, will content itself with a preliminary classification of contemporary European educational movements, and a study of what these movements have done toward giving shape and substance to the European form of activity pedagogy.

A. THE CLASSIFICATION OF REFORM MOVEMENTS IN EDUCATION

Modern eclecticism in education can best be understood by studying the separate reform movements in education which comprise it. Of course, the word "reform" must be interpreted as denoting merely an intention to change the form of education. Each educational reformer believes that the changes he advocates would mean a betterment for the education system; but for our purpose, a "reform movement in education" is simply a movement suggesting a change, be that change a wise one or not. Specifically, our problem is to examine some of the most characteristic of these reform movements with regard to the effect they have had upon modern activity education.

These reform movements can be classified conveniently in two ways—as to their effects, and as to their origin in the cultural tendencies of our times. The former method of classification separates the reform movements into two groups—those which tend toward diversification in education, and those which make for greater unity. The latter

method classifies them according to their origin as educational naturalism, educational individualism, or educational socialism.¹

1. Reform Tendencies Classified according to their Effects

a. Suggestions making for diversity

Movements making for diversification would be, among others, the following: suggestions for differentiating courses of study according to special needs of a district or community;² suggestions tending to stress differences in special methods for different subjects of the curriculum; suggestions for dividing pupils in public schools into sectarian groups for religious instruction; suggestions for erecting separate types of schools—vocational, continuation, science high schools, art high schools, schools for the bright, the slow, the physically handicapped, etc.; suggestions which would result in greater choice of electives; suggestions for segregation of pupils into groups chosen on one or another basis—sex, age, intelligence quotient, etc.

b. Suggestions making for greater uniformity

On the other hand, some typical movements making for increased unification would be, among others, the following: suggestions to make education solely a state matter, that is, curtailment of sectarian education; suggestions tending to democratize education by giving greater opportunity for education; suggestions for raising the compulsory school age; suggestions for application of educational techniques found of value in one subject to other subjects; suggestions for improving general teaching ability; coeducation, etc.

2. Movements Classified according to their Cultural Origin

When we come to classify educational movements according to their cultural or educational origins, we note

that there are still three points of view from which education may be approached—from the standpoint of nature, of the individual, or of society.

a. Naturalistic movements

Movements in education may be classified as naturalistic : if they emphasize nature as the chief subject in the curriculum—for instance, if they make nature study the core subject, or correlate everything with nature ; if they emphasize physical training or physiology in the same way ; if they stress the developmental idea of evolution ; if they emphasize experimentation and sense training. Naturally, there is always some overlap, especially with individualistic education.

b. Individualistic movements

The individualist in education stresses development of personality, the child-centered school or the child-centered curriculum, "free" pedagogy and discipline, "creative" education—usually with an aesthetic or art-creative aim.

c. Social movements in education

The social viewpoint in education sometimes manifests itself in rather narrow aims. So we must classify moral education, religious education, sex education, and education for the inculcation of a certain type of political or social structure—e.g., Communist education in Russia, Fascist education in Italy or Germany—as forms of social education, for all these forms subordinate their interest in the pupil as an individual to their interest in the pupil as a member of a social group. The broader social educational viewpoint is sometimes called the sociological tendency.³ It is illustrated by movements which combine individual and social aspects of education with perhaps greater emphasis on the second factor ; it emphasizes "real life," meaning thereby life in a community ; it suggests ways for the individual to be fitted for effective living in a social group,

e.g., through vocational training, etc.; it frequently regards itself as the vehicle for social amelioration.

These, in brief, are the types of educational movements which have had and are having an effect upon the activity school. By examining the most significant of these contemporary movements, we can trace these effects, and thereby advance the process of describing an activity school.

B. THE EXPANDING CONCEPT OF "MANUAL TRAINING," A GAIN FOR THE ACTIVITY SCHOOL

Aside from its growth through the application of pedagogical and philosophical principles—as was shown in Chapter I—the activity school is indebted, for a large part of its progress and development, to the expansion of the idea of manual training. It is of the utmost importance for understanding the genesis of the modern activity school that we keep clearly in mind how the term "manual training" was expanded to include more and more forms of bodily training; how the subject of manual training was placed at the service of other subjects; how the methodology of manual training became more clearly recognized not only as physical activity, but also psychophysical activity; how, finally, this principle of methodology, *activity* (both physical and psychophysical) went over to the formal subjects and became incorporated in the methodology of these subjects. At that point activity pedagogy becomes (*a*) *pedagogical activity*, a subject of the curriculum—"manual training" in its broadest sense, which makes use of physical energy and psychophysical energy; and (*b*) a principle of methodology, *activity pedagogy*, or activity methodology, applicable to any subject of the curriculum. The term "activity pedagogy" is thus seen to have a generic and a specific sense; this frequently causes confusion in our thinking. As a general term it is used to designate an educational program which utilizes activity as both subject and method; as a specific term it designates

a form of methodology which utilizes pupil self-activity as a didactic principle.

1. Manual Training Takes Many Forms

At first manual training meant little more than wood-work. That is what the sloyd contribution to activity education really amounted to, as we have seen. Rousseau thought farming would be excellent in many respects, but finally advocated wood-work alone because it had the advantage of being a skill of which adverse circumstances in later life could not deprive its possessor, and because it was clean and healthful and would lead to an appreciation of beauty in form and efficiency in function. But it wasn't long before other forms of manual training were advocated. Clauson-Kaas included work in plaster, inlaying, carpentry, straw-work, basketry, bookbinding. Locke had advocated farming, but only because of its effect on the body. Kindermann advocated gardening, orchard agriculture, housekeeping, and any form of home industry by which the family income could be raised. His follower, Vierthaler, added stockraising, farming, dairying. Finally Georg Woldemar Goetze (d. 1898) and Alwin Pabst (d. 1918) took an important step forward for the activity school.

2. The Leipzig Method

Goetze realized that the growing concept of manual training required teacher training in order to make it function. Consequently, in 1887, as a result of his suggestion, an in-service teachers' training course in the teaching of manual training classes was opened at Leipzig. This course was repeated every summer and, as a result of its success, it became known as the "Leipzig Method" for which Pabst, Goetze's successor, became the chief protagonist. The forms of manual training were paper-work, half a dozen different types of wood-work, modelling, metal-work, the making of pedagogical instruments for in-

structural purposes, glass-work. The number of courses was very large, but teachers were urged to specialize on one type, and the watchword was "Little, but thoroughly." But of even greater significance for the activity school was the system of lectures on purpose, meaning, history, and method of pedagogical activity. Goetze and Pabst were Herbartians and pupils of Ziller; they were enthusiasts for manual training not for its utilitarian, but for its cultural value, as contributing to their general aim of an all round harmonious development. They saw in manual work a kind of speech, a form of self-expression, and therefore proposed that it be given to children at all levels, for the child destined for the professions needs it as much as, if not more than, the child destined for a career of manual labor. Finally, as manual training is a part of general method, it should be taught only by teachers, not by artisans.

There are significant implications to this doctrine. First, since manual training is part of general method it has the duty to correlate with other subjects as much as possible. Secondly, it is not only a mere helping or auxiliary subject, but is in the curriculum of its own right. As such, in the third place, it has a special method, which includes a free discussion of available means before beginning on the project selected. The approach to activity method is obvious.

3. Correlation between Manual Training and Other Subjects

These implications of the Leipzig Method brought about an important discussion as to the nature of the integration that should exist between manual training and the other subjects. Goetze and Pabst insisted until the end that manual training retain its complete independence, but a growing number of educators saw the chief value of manual training as a helping subject for other subjects. They, therefore, recommended that manual training be closely integrated with one or other subjects (usually mathematics,

drawing or nature). In doing so they robbed manual training of its independence, but they gradually brought about the transfer of activity instruction, a physical and psychophysical principle of education, to other subjects. That was, of course, a great gain for the activity school.⁴

Another interesting outcome of the Leipzig Method was the work of Peter Jessen, who proposed four criteria for manual training and, incidentally, for industry; viz.: honest materials; honest workmanship or technique; appropriate form; harmony of parts. Jessen's suggestions will be seen to be excellent as far as they go. However, he was so preoccupied with the aesthetic aim in education that he lost sight of other aims. Other educators who emphasized the aesthetic value of manual training are Hildebrand and Rothe.

C. PSYCHOLOGICAL FOUNDATIONS OF THE ACTIVITY SCHOOL

1. Scherer

Heinrich Scherer (b. 1851) set himself the task of analyzing psychologically a complete *Anschauung*—object lesson. Through the sense organs we get sensations, the awareness of these sensations is perception, the perceptions are mentally digested by comparison with the apperceptive mass, the result of such digestion or assimilation being a concept. Now the richness and accuracy of a concept depends upon richness and accuracy of the percepts. Hence arises the importance of having many and varied percepts to enter into the formation of a concept. These percepts, to be rich, varied and pedagogically adequate, must come from different senses, and must be of different quality. Furthermore, they should be repeated in point of time and made under varying conditions. A pedagogically satisfactory object lesson, therefore, employs as many senses as possible in as many situations as possible. Concept-forming, being the conversion of the outer phenomenal world into the inner noumenal world, is half the

process of education—the half we call the acquisition of knowledge.

The reverse process, expression, the impingement of the inner world upon the outer, is coordinate in importance with the former process of impression. Chief of the means of expression is speech; but speech is not the only means. The activities of the body—drawing, modelling, any kind of manipulation of matter—are rich means of expression which the traditional “learning” school for the most part neglects. Such expression takes place in response to innate drive, and the satisfaction of this drive is a need of child life. The suppression of expression is, therefore, psychically injurious. Expression takes place first in mere reflex actions, but these soon are replaced by conscious or directed action. They, therefore, involve the will and the judgment, for the child must consider the steps to be taken in order to express his inner life in the outer world, and, through an effort or act of the will, take these steps. Hence the manifestations of expression are not merely mechanical, that is, physical activity, but also mental, that is, psychophysical activity.

Upon this psychological basis Scherer has erected his proposals for activity pedagogy, taking in all the grades of the elementary school. He suggests that in grades I and II all instruction be in the form of object lessons—that is, instruction in sensory perception, and hence activity instruction. The concepts so gained will result in “subjects for expression” in the Froebelian sense—with paper, blocks, sticks, weaving, etc. In this way the beginnings of reading and number will take place. . . . In grade III, nature and home geography are combined in activity instruction, and, in addition to this application of activity as a principle of method, activity as a separate subject is begun with modelling as the recommended form of manual activity. . . . In grade IV the manual instruction is the application of facts learned through the principle of activity in home geography, nature study, number, etc. to

the construction of models selected for their usefulness in everyday life. These are, of course, arranged in order of difficulty; furthermore, speech, as a means of expression, is not neglected.

Scherer understood that activity pedagogy has socio-logical implications—the objects created are of technical utility; they affect human life and relations; they are created in a social setting; by raising the technical efficiency of the people the economic and cultural position of the nation is raised, etc. In short, Scherer is important for the activity school for two reasons: first, he established the psychological basis for activity pedagogy; and, secondly, he urged application of activity pedagogy to the elementary school because of its sociological importance. His follower, Hans Denzer, repeated Scherer's proposals for the elementary school (grades I to IV), and added to them by suggesting experimental work for pupils in the intermediate grades—in nature in grades V and VI, and in chemistry and physics in grades VII and VIII.

2. *The Leipziger Lehrer Verein*

Further psychological foundations for the activity school were laid down by the influential *Leipziger Lehrer Verein* (Leipzig Teachers' Association), but, whereas Scherer approached the psychological problem from the social point of view, the *Leipziger Lehrer Verein*'s influence is directed more toward individualism in education. For them, the Froebelian doctrine of development is fundamental: namely, that effective training at any given stage of the child's development rests upon effective training at every preceding stage. Hence development of the school child is a present, not a future, consideration, and a system of education which, like career education, constantly regards the future needs of the child, and never sees the present needs, must be rejected. As the environment of the child determines the needs of his present development, and as that environment is everything that touches the child's

life, the Association advocates, not a few subjects thoroughly drilled, but as broad an experiential basis for child activity as possible.

But this experiential activity should not be broken up into bits, or analyzed out into separate subjects of the curriculum. Instead they advocate one undifferentiated subject, Home-and-Civilization, broadly conceived, and taught through pupil self-activity until the child's thirteenth year. This proposal is based upon the idea that until about thirteen years of age the child cannot think synthetically; hence if we were to present the body of instruction dissected out into logical subject divisions, the child, being unable to synthesize properly, would never see the unity underlying all. Up to the thirteenth year instruction in the formal subjects should be largely opportunistic, casual, incidental. After the thirteenth year a single subject becomes central—a concentration subject—but the central subject is changed from time to time, each of the traditional subjects of the curriculum occupying central place in turn.

A form of instruction based outwardly upon the developmental principle must be inwardly or psychologically organized on the same principle. This becomes possible by utilizing the child's innate drive for self-activity. As the child develops, the forms of his self-activity change, but the learnings appropriate to the child's development at any given stage should not be inculcated or told, but should take place through the child's own seeing, observing, and experience. The goal is not motor activity as such, but the union of physical and mental activity. This is true activity pedagogy.

There are three rules of method which are important for an activity school: (*a*) discovery by the child himself rather than indoctrination; (*b*) impression should always be accompanied by expression; (*c*) pupil self-activity the pedagogical basis of instruction.

The acquisition of knowledge is always to be united

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with expression. But such expression may be on one of three levels. For the young child it is conceptual, in the sense that the child has the concept of, say, a man, but expresses it merely in a schematic representation of two circles for head and torso and two pairs of lines for arms and legs. At a more advanced level the expression becomes "naturalistic," that is, more closely following the object as found in nature. Finally, for the talented child, the expression may reach the plane of the artistic. The unity of the entire learning process, a unity which includes the organization of the subject matter, the experiential type of acquisition of knowledge and skills, and expression on the three levels of technical activity, is achieved by basing it all on the psychological law of child development as that law becomes operative in pupil self-activity.

In summary: The *Leipziger Lehrer Verein* proposes a child centered school; it is thoroughgoing in its application of the Froebelian principle of child development even to the extent of showing how the activity school may be further developed; it widens the meaning of pupil activity to include not only physical but mental activity.

3. Lay

A third contributor to the psychological basis for the activity school is the experimental pedagogue, William A. Lay. He insists that the threefold process of learning—impression, assimilation, expression—is a unity which cannot be separated in practice. Hence everything the child does is expressional, though expression may take many forms. It may be formal, as writing, drawing, etc.; it may be literal, as speech; or manual, as modelling; or experimentation; or behavioristic; or play, etc. Hence an activity school for Lay is one that concerns itself especially with the expressional part of the learning process; or, said another way, with the "R" end of the S-R bond.

The child is an integral member of a life group, which acts upon him, and upon which he reacts. Hence the

basis of all education is the innate and acquired reaction. Hence, also, all acquisition must be applied in expression. Expression in turn reacts back upon both observation and assimilation, correcting these processes as the child compares the result of his efforts in expression with the concept he had when he did his expressional act. This corrected concept then becomes the basis of a new expressional act, and this process continues until a stage of equilibrium is reached—which means that the result of the final expression is in agreement with the anticipated result and with the concept as corrected.

Lay had a considerable influence upon his contemporaries, first, because of his position as head of the Karlsruhe, Baden, teacher-training institution, and, secondly, because of the steady stream of reports of the result of his experimental work in method which he issued. One of his disciples is Heinrich Kerp, who accepts Lay's general position but emphasizes the fact that repeated expressional doing or activity is a means of training the will. He regards this as so important that he speaks of his type of activity school—he was School Inspector in Kreuzberg—as the "School of the Will."

Of greater significance, however, is K. C. Rothe, the Austrian who, from a psychological starting point, advances to the position of pedagogic naturalism. According to Rothe, the central idea of the activity school is in the learning process. This consists of three steps: (*a*) taking up impressions from outside world; (*b*) assimilation, to solve a problem which the child voluntarily assumes; (*c*) the solving of the problem. The last step is the real outcome of the educational process. The great pedagogical problem of the activity school is the difficult act of so influencing the mental set of the child through pedagogic techniques, that the child does not realize that he is being influenced by the teacher, or being subjected to a pedagogic technique, but believes that the assumption of the problem is an act of his own free will without suggestion

from outside sources. Clearly this calls for a special activity methodology.

A pupil's self-activity in the solution of his own difficulties is the most important characteristic of activity pedagogy. When the pupil solves his own difficulties, by his own act, and in accordance with his own will, he is approaching "salvation"—not in the Biblical sense, but in the sense in which this word was used by the Stoics. Salvation is the achieved acceptance of man's place in the world, with conscience as the bearer of ethical claims upon him. Through salvation the individual comes into harmony with the outer world and with himself, and thereby he achieves inner peace. But he is not retired from the world; on the contrary he is an active worker in the world for the good of all.

4. Others

Another educator who, though interested in the psychological foundations of the activity school, could be classified in another category—in this case, as an organizer—is Otto Seinig. Like Lay, he believes the activity school should give special attention to expression. He fully realizes that expression is of many kinds, but the special concern of the activity school, using that term in its narrow sense, is manual or bodily expression. He suggests that the manual expressions may be conveniently divided into two kinds: (a) those that can be taught in a classroom without special equipment, e.g., drawing, crude modelling, paper work, "*Basteln*"⁵ and (b) manual training in specially equipped shops. The significant difference between the two kinds is that the former trains the intelligence through the hand, the latter the aesthetic sense; both train the will.

He advocates both kinds of manual training, but realizes that organizational difficulties might prevent the introduction of workshop manual training. He therefore advocates the immediate adoption by all schools of the first

kind—which he regards as a principle of method for the activity school. He suggests that the time set aside for object lessons be utilized for this type of activity pedagogy, for such work includes plenty of sense training. In order to fit teachers for this type of instruction he suggests teachers' seminars in the pedagogy of the activity school, and seminars in the technique of the various kinds of classroom manual training. His suggestions concerning the acquisition of teaching and technical devices are very practical. Finally he suggests that practical activity school teachers, who have been successful, should write accounts of the way they have applied activity pedagogy in special methods for special subjects. He himself contributed *Die Redende Hand* (the speaking hand) to give a complete exposition of his ideas.

From the work of these men—Scherer, the *Leipziger Lehrer Verein*, Lay, Rothe and Seinig—it will be seen that the psychological foundations of the activity school were broadly laid. These educators accepted the Pestalozzian framework for the public school system, but, through their psychological studies, they made it possible for school method to adapt itself to the changing conditions of modern communal life.

D. THE ACTIVITY SCHOOL AS SOCIALIZED EDUCATION

i. *Kerschensteiner*

George Kerschensteiner (1854-1932), whose theory is related to that of Spencer, and whose practice is in many ways like that of Dewey, approaches the problem of education from the sociological point of view. Basic is the fact that the state or community may be regarded as a sociological organism which develops adaptations according to the needs of the organism itself. Education is one of these institutional adaptations of society, and its purpose is social,—to prepare the individual for effective citizenship in the state. But to be an effective citizen four things are

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necessary, which become the objectives of education. These four things are: (a) knowledge of the functions of the state; (b) will to live in accordance with this knowledge; (c) physical; and (d) mental power to carry out such will.

The traditional school has failed signally in fulfilling its function for several reasons which should be remedied. It has attempted to teach too much; hence it has developed a technique of mere verbalism, of pouring in on the student large quantities of vicarious verbal knowledge. But "understanding consists not of factual knowledge alone, but also of sharpened perceptions in even greater degree."⁶ The remedy is sharply to reduce the curriculum and to make what is left experiential in the life of the child.

In the second place the traditional school has set itself an impossible ideal—that of the wholly developed man. This ideal is a mere abstraction and has no existence in fact, for even the most brilliant man is the product of his race and times. Hence the way to the ideal man is, first of all, the way to the useful man. But the useful man is one who has a useful career in his community; therefore the way to the education of man is through education for a career.

The knowledges and skills which make up the body of education may be of two kinds—either vicariously acquired or self-acquired, self-expressed, self-achieved. True education lies in imparting knowledges and skills of the second kind; whatever is first acquired verbally or through books must eventually be made real by personal experience or personal activity. If the book school will pattern its method on that of the play school (Froebel) it will become, with such methodology, an activity school.

Now, since the majority of vocations are manual, Kerschensteiner advocates a great deal of manual activity. Through such cooperative manual work arises a "work community," which will develop in the child a realization of community interests and the necessity for self-subor-

dination to the purposes of communal enterprise. So arise social virtues and attitudes, and these are the basis for character training. The main purpose of communal school work is not the object produced nor the skill acquired, but the mental and moral worth of the exercise in training children to become people who understand the causes, goals and advantages of social living.

In conformity with these basic considerations, Kerschensteiner organized the schools of Munich, of which he was City Superintendent. It is not necessary for the purposes of this study to describe that organization in detail, but we must note how Kerschensteiner made use of the techniques of the activity school. For instance, there is a considerable predominance in number of hours devoted to activity subjects over those devoted to language instruction, and this emphasis increases as the level rises. The principle of activity must not, however, be too narrowly interpreted, for, as Froebel points out, pedagogical activity is not confined to the physical. Whenever instruction is experiential, whenever the pupil does, feels, thinks for himself, he is engaging in activity. . . Another characteristic of the activity school is the use of workshops—for the boys, wood- and iron-work; for the girls cooking and other household arts. Kerschensteiner had considerable difficulty in convincing the city authorities of the need for such workshops in the schools, so he did not succeed very well in integrating manual training with the other subjects. However, to achieve a unity of sorts, he had the same teacher teach all subjects—activity and non-activity alike.

The vocational aim is prominent throughout the system, but it is nevertheless subordinate to the good-citizenship aim. Therefore, in trade and continuation schools, the pupil studies not only the special trade for which he has enrolled but also general business practice, business ethics and related trades and skills. Nor is the personal ethic side neglected. Innate in everyone there is a drive for self-sufficiency, a desire to make oneself independent and self-

supporting. This form of egoism is not only natural but worthy. But it is supplemented by another innate characteristic of our nature—the moral-ethical-altruistic side. It is the business of the school to unite these two innate impulses, to inculcate the idea that the good of the individual is bound up with the good of the group, and that for this general good the state exists. To do this, the school gives instruction in the history of human institutions, and social cooperation is made real through participation in the cooperative activity of a community of work. Social cooperation also presupposes self-government on the part of the pupil, sufficiently supervised to see that it is kept in working order.

Kerschensteiner's significance for activity pedagogy rests chiefly on the fact that he is the man of action. He conquered the conservatism of the schools and put his program into operation. Aside from this he is also an able dialectician who influenced the activity school with his sociological bent. He made four points:

- (a) the aim of education is to produce good citizens;
- (b) curricula should be reduced, so that what is taught may be learned experientially;
- (c) activity pedagogy includes everything, mental and physical, that the pupil does for himself;
- (d) the learning school, by adopting the methodology of the play school, will be converted into an activity school.

2. Seidel

Robert Seidel, the Swiss educator (b. 1850), started from the psychological-pedagogical premise, but from it deduced his strongly social philosophy of education. In general he is a Pestalozzian, who differs from his master in that he does not share Pestalozzi's great respect for the object lesson as the *sine qua non* of educational procedure. Not the object lesson but "creative activity" is the more important, for creative activity includes the object lesson,

the reverse not being true. Creative activity is the principle of pedagogy through which the new society, a society of communal activity and conscious solidarity of purpose, will be called into existence. Seidel, like Dewey, regards education as the best means of social amelioration; like Kerschensteiner, he sees education in terms of the state.

Modern conditions since the Industrial Revolution have deprived the home of its function to train the child for his future activity as a member of society. As a consequence, government, through its schools, must perform this function by training the child for his career. This the schools can do by applying the principle of pedagogical activity which, for Seidel, is creative, spontaneous pupil activity undertaken in a social group cooperating in activity designed to bring about a determined end. Such activity not only trains for career—facts, skills, techniques—but also for the good life. For like his master, Pestalozzi, Seidel believes the end goal of education should be the harmonious development of man. Virtue is the highest wisdom; it can be achieved through activity, because it is only in the doing of socially desirable acts that character is formed. A true *Volksschule*—school of all the people—is one in which salutary social and moral lessons are taught, through communal activity, in a situation which makes school identical with life.

Such social education, Seidel thinks, is the best individual education. True individualization means not education of one child at a time, but the best instruction for the individual. He, therefore, recommends a multiplicity of forms of manual training, and agrees with his predecessors in claiming special values for this type of curricular subject. He stresses particularly the moral value of manual training in inculcating a respect for the dignity of work and appreciation of its product.

Seidel himself regards his form of activity education as general education; but in this opinion he is not justified

for his aim is too narrow. Seidel is so absorbed by the sociological aspects of education, that he unwittingly leaves out other aspects which belong in a system of education which lays claim to being universal or general education. His work antedates that of Kerschensteiner, but he did not have the latter's great influence, though two Swiss publications—"The Pioneer" and "Swiss Monographs for Boys' Manual Training"—ably supported him. As a result, considerable progress in introducing activity education in the schools of Zurich, Basel and Berne has been made.⁷

E. THE ACTIVITY SCHOOL AND INDIVIDUALISM IN EDUCATION

Viewed broadly, the activity school is largely the result of the sociological viewpoint in education. Therefore, in examining the record of contemporary educators, it is difficult to find one who is at the same time clearly an individualist and an activity educator. We have seen that the combination is not impossible in the case of the *Leipziger Lehrer Verein*; our only other example is Hugo Gaudig, who is closely related to the *Leipziger Lehrer Verein*, and, as might be expected, sharply in opposition to the sociological ideas of Kerschensteiner.

Hugo Gaudig (b. 1860) finds the unifying principle of education, and its cardinal duty, the development of the personality of the individual. The individual's abilities are self-developmental, and their purpose is to increase themselves. It is the business of education to find them when latent, stimulate them, and give them means of self-expression. The goal of the educator, therefore, is to give the pupil the opportunity for self-activity. The result of this activity is a personality gain for the individual—in feelings, emotions, attitudes, skills and knowledge.

Gaudig's chief disagreement with his predecessors among activity educators, aside from his individualistic educational aim of personality development, seems to be that he thinks most activity educators rate manual training too highly. Schools should prepare for all life's activities, not merely

the vocational; indeed, in this machine age the number of manual occupations is constantly decreasing. Furthermore, when it is claimed that through manual training instruction is extended beyond the object lesson, then it should be remembered that knowledge gained by means of expression, objectification, and activity is really knowledge only because the sense training through the object lesson was done in the first place.

On the other hand, while warning against valuing manual training too highly, he would not exclude it from the curriculum. But he would emphasize the process rather than the product. He realizes that motor functions are important expressional means, and that training these functions enables the pupil to be more efficient in obtaining percepts. Finally he stresses the aesthetic and ethical values of manual training.⁸

F. THE ACTIVITY SCHOOL AND THE NATURALISTIC TENDENCY IN CONTEMPORARY EDUCATION

When we seek to trace contemporary naturalistic influences upon the activity school, we are faced with a curious situation. There seems to be no dearth of educators who have made suggestions in the naturalistic tradition, but none of these suggestions are of any great importance. The truth of the matter is that the naturalistic ideas of J. J. Rousseau are so dominant in modern education, that there is little left to say, for Rousseau said all the significant things long ago. The contemporary naturalists in the activity movement for the most part confine themselves to suggestions to emphasize nature, science, or physical training, or to plans for combining manual training with one or other of these subjects.

1. *Rothe*

One of these educators is that Karl Cornelius Rothe whose work as psychologist of the activity school we have

noted above. Rothe thought that the natural sciences were the most important subjects for cultural training. Hence his suggestions for reform of educational procedures turn largely about improvements in the teaching of these subjects. He is therefore one of a long line of methodologists of the natural sciences—a line that begins with Humboldt and includes, to name those only who have significance for the activity school, Fischer, Leunis, Schmarda, Moebius, Junge, Kerner-Marilaun, Schmeil, and Lay.

2. *Haufe*

The most radical of the pedagogic naturalists of the activity school is Ewald Haufe. Man, he says, is neither an independent individual nor an individual opposed to nature, but is part of nature. The evolution of man and of nature go hand in hand in a unity of purpose, which can be studied in a series of natural divisions of nature itself. There are five great realms of nature—of stones, of plants, of animals, of man, of the world—and each of these realms is subdivided. Thus the realm of stone, for example, includes the air, the water, sand, the plastic solids—like plastic, cement or lime—and finally crystallized rock. Briefly Haufe's suggestion is that we base our curricula upon these realms of nature, and their subdivisions. Thus the child studying the first realm, first subdivision, namely the air, would perform constructions and experiments in which the air plays a part. He blows soap bubbles to perceive wind directions, makes little flags, paper designs, reed instruments, pinwheels, etc. So with each of the subdivisions in turn.

The pedagogical activity which is contemplated in this "natural system" is defined as the natural training of senses and bodily organs through physical activity having cultural value. This physical activity involves, not only the training of the senses, but technical manipulation of tools; so making of flags involves use of scissors, constructing reed instruments involves the knife. The entire body of

instruction is character building material; and this again may be classified into another group of five classes, viz., truth material, beauty material, health material, divine material, art material. In short, man has learned from nature the principles of work, truth, health, beauty, godliness, and has used these principles to construct his civilization. "When finally the youth looks backward and downward along the path that man has climbed to reach the heights, he will also cast his eye into the future, and, filled with the zeal for effort, he will see the goal of all evolution—the natural man, at peace with God and nature."⁹

In spite of these extreme ideas, Haufe has contributed something to the activity school. He suggests that the study of mankind may be fused with the study of nature through pedagogical activity. Secondly, his pedagogy is based on the principle of natural development—as he sees it, though many would quarrel with the details of his arrangement. This principle of development in Haufe takes the form of a recapitulation, in pedagogy, of the natural processes of evolution. Thirdly, he holds that if the youth follows a course of activity based upon the evolutionary activities of nature, he will, because he is himself a biogenetic phenomenon, develop, expand, and train his own personal nature.¹⁰

G. THE ORGANIZERS OF MODERN ACTIVITY SCHOOLS

In tracing the development of the activity school in Germany and Austria, it is necessary to note not only those educators who have contributed to the philosophy or methodology of the movement but also those who have been instrumental in putting these ideas into actual practice. The most important of these organizers is Kerschensteiner whose contributions to the activity school we have already summarized. His work need not therefore be described a second time, but mention should be made at this point of Kerschensteiner's supreme importance in organization and administration.

i. Wetekamp

W. Wetekamp (b. 1859), although principal of a Real-gymnasium in Schoenberg-Berlin became interested in activity pedagogy in the elementary school because he had supervision also over a preparatory school attached to the secondary school. He found that best results in formal subjects could be obtained by activity methods, basing the learning process on the developing of natural interests of the child. Hence he proposed that beginning instruction should be object lessons, and not the traditional three R's. These he would teach as a result of productive activity; with little sticks the child would lay out letters, words, sums of numbers, etc., and the instruction in the three R's would take place after the child had become interested in these subjects as a result of his physical activity. The three R's are not separate subjects in the curriculum, but are integral parts of a general subject whose method is activity and the object lesson. It is only after eye, hand and other sense members have been sufficiently trained that writing is attempted, and then pen and ink are given immediately.

Wetekamp was not only a theoretician, but a practical educator as well. His system has been found to work, not only in beginning classes but in other primary and intermediate grades. In fact, Wetekamp insisted on the use of activity pedagogy right through the grades of the secondary school. He finds that the question of whether pedagogical activity is a method or a subject is futile, for it can be both or either. When the aim of the activity is mechanical — for instance, to acquire a needed skill — then this form of instruction is subject matter. But as soon as initial difficulties have been overcome, then activity becomes a principle of instruction useful in the general method of all subjects.

Wetekamp's proposals for activity include all the forms of manual training commonly accepted but, in conformity

with the idea that these activities are predominantly method, he places these activities at the service of separate subjects. For instance, in grades V to XII he associates various types of manual training with mathematics and the sciences, not only for making of apparatus but also in the sense that pupils conduct their own experiments in physics and chemistry laboratories. Here he clearly approaches English and American secondary school practice.

To summarize Wetekamp's significance for the activity school, we may say that he did two things: first, he utilized activity methods in all grades from I to XII; secondly, as an administrator, he showed that these methods actually worked well in actual practice.

2. *Loeweneck*

Dr. Max Loeweneck insisted that the question of learning-school versus doing-school should not be asked in the spirit of either-or. Both he finds necessary. But the administrative problems to a successful fusion of doing and learning are many; he states them, and then proposes to meet these difficulties in the following five-point program:

1. Program suitable activity-subject matter for each grade, I to VIII.
2. Projects undertaken must require only simple tools and be inexpensive.
3. The vocational aspect must be subordinated to the cultural.
4. Great technical skill must not be required of pupil or teacher.
5. Time for activity should be taken from subject with which the activity is correlated.

In this way the activity program can be gradually introduced without excessive costs, without causing subjective difficulties for pupil and teacher, and without the need of scrapping present buildings. And the result will be a fusion of learning and doing—not either stressed at the expense of the other.

3. The Austrians

This brings our account of the growth of the activity school in contemporary education to the point at which activity education for the first time received recognition as general education on a nationwide scale. This took place in Austria after the war. The part that Edward Burger personally played in this organizational and administrative achievement is related more fully in the biographical sketch of Burger's life in the appendix. But here we are concerned less with biographical detail than with educational history. We must focus our attention on the whole movement rather than upon any single individual in it.

The reform of Austrian education into activity education was the work of the Austrian Minister for Education, Otto Gloeckel. The implement with which Gloeckel worked was an educational division called the "Division for School Reform," which was further divided into a subdivision for elementary schools (I to IV, or V) headed by Victor Fadrus, and a subdivision for intermediate schools (V to VIII) headed by Edward Martinak.

The labors of the elementary school subcommittee resulted in a new course of study for grades I to V which, after discussion and revision, was promulgated as official in September 1920. This plan will be studied in greater detail elsewhere; in passing it is necessary to note that three fundamental principles of activity pedagogy underlay and characterized this new course of study.

1. Development was to be according to child's naturally unfolding interests.
2. Differentiation of course of study according to local community needs.
3. Activity is the basic principle of method.

Two other characteristics of this course of study, but not regarded as basic or essential are:

1. Home-and-life culture is the unified vehicle of all other subject matter.
2. Manual training is not a subject by itself, but used as method in all subjects.

The subdivision for intermediate schools also developed an activity school for grades V-VIII which was known as the *Deutsche Mittelschule* and which parallels the older *Allgemeine Mittelschule*. In these new intermediate schools the activities comprise those processes which are necessary in every household—care of clothing, preparation of food, care of garden, making of simple tools and apparatus, improvement of house, repairing, etc. The important thing is that all this activity is intensely practical, and the child's in-school life is therefore tied up as closely as possible with his out-of-school life.

The change from the traditional to the activity school involved preparing teachers to carry on in the new setup. This was done through the Teachers' Academy, later called the Vienna Pedagogical Institute. Burger's leadership in this part of the work of instituting a nationwide activity school system consisted of teaching teachers, of experimentation along methodological lines, and of disseminating pedagogical information through publication. In the meantime, Otto Gloeckel had resigned as Minister for Education, and become head of the Vienna school system, thereby making Vienna the nucleus as well as the model upon which Austrian activity schools patterned themselves.

4. *The German Constitution*

Meanwhile the activity school was also winning recognition as general education in Germany, for, on August 11, 1919, the German Constitution was adopted at Weimar with Article 148, Section 3, making training in activity compulsory in all public schools. The debate in the Constitutional Convention on the inclusion of this article shows, as might be expected, that there was no very clear idea of what activity pedagogy means. A socialist representa-

tive objected that he feared the inclusion of the activity in the curriculum would lead, as a practical outcome, to a form of school in which children were trained only in bodily activities, that is for manual labor; he didn't say so in so many words, but implicit in his objection is the fear that the schools would turn out nothing but factory workers for whom the higher cultural aspects of life would be a closed book. The Catholic Centrum was glad to have people taught how to work, stressing sloth as one of the deadly sins. Radical Socialists wanted to have the schools indoctrinate the pupils with a Socialistic political philosophy; economic determinism is the "granite foundation" upon which we rear the superstructure of beauty, truth, power, etc. All these viewpoints the moderate (Democratic) Dr. Richard Seyferth answered. The activity school did not arise as an instrument of propaganda for or against any political, ethical or economic theory or system, but is based upon a principle of pedagogy—the activity principle—which has been objectively established by pedagogical experimenters as the best method of teaching.

The confusion, however, was not dispelled by the formal passage of the article, and in the following year the question was reopened in the 1920 National School Conference in Berlin. The general topic of the conference was: What is the effect of activity pedagogy upon thought content? — and the task of reporting fell on a committee consisting of Dr. Johannes Kuehnel of Leipzig, Dr. Paul Natorp of Marburg, and Dr. Robert Seidel of Zurich. The report which this committee prepared was adopted by the Conference and remains the most important document in the history of the activity school in Europe.

National unity is based upon the mental and physical cooperation of all members of society. This cooperation takes the form of activity—physical and mental—and creates a dualism which cannot be separated in the educational process. The school, therefore, cannot be merely an institution for the inculcation of facts, but must be an activity

school in the sense that it gives training in mental and physical activity in a communal environment. Through a systematically organized program of play, representation, creative activity and manipulation, it should train toward self-achieved mastery of knowledge, toward spiritual life values, toward intelligent appreciations, and, through all of these, toward a life of active doing in the service of the life community. Its program should grow out of the life interests of the community and of the child as they are found in social institutions—the home, the school, the community.

In order that the present organization of the school may develop into the activity school two principles must be adopted:

1. Activity in the form of creative learning must be raised to the position of an educational principle of method.
2. Activity in the form of various kinds of manual training must be made a subject of the curriculum.

If these two basic ideas are adopted there follow certain corollaries :

1. Learning must be given expression in informed doing.
2. The expressional part of the learning process is of equal importance with the impressional part.
3. Expression may not be confined to verbal expression, but must include work of hands and the body generally.
4. Activity, as a principle of education, must affect the curriculum, the course of study, and the materials of education.
5. Manual training begins in lowest grade as an undifferentiated part of the general combination subject ; as the pupil advances through the grades it gradually takes shape as an independent subject.
6. Manual training may be either classroom activity or workshop activity.

This far-reaching report marks the triumph of activity pedagogy in Germany. Of course, it wasn't immediately

put into operation, but for the twelve years between the adoption of the report until the advent of Hitler the German public school system moved steadily in the direction of putting the program into operation on all levels.¹¹

H. FANATICISM IN MODERN ACTIVITY PEDAGOGY

Before closing this chapter, a word should be said about those extremists in education who must be classed as activity educators because they utilize the principle of activity as a principle of method, but who, for one reason or another, give education a direction away from general education toward a goal which is nearer their heart. It would be unprofitable to examine their suggestions in detail, but we cannot dismiss them without at least stating the grounds for thinking them false prophets.

1. *Blonsky*

The first is the Russian, P. P. Blonsky, who was the spokesman for Soviet education. His central idea is that the modern age is industrial, that pupils should therefore be trained in cooperative activity as it is found in a factory. Hence the school is but part of the industrial system; in fact in the upper grades the factory and the school are synonymous, for the school is located in the factory. The product of the industrial school, according to Blonsky, is the worker-philosopher who best can integrate knowledge and technology, and who is best fitted for "socialized living." . Since A. P. Pinkevitch has become the head of the All Union Committee on Higher Technical Education in Russia, 1932, the Blonsky type of industrialized activity education has been supplanted.¹²

2. *Haufe*

Ewald Haufe has been discussed as a naturalist in education who advocated the principles of the activity school. The reason why he must be classified as a fanatic is apparent from our previous examination of his suggestions. His

arrangement of all nature into "realms" and "sub-realms," and his insistence that the pupil be forced to pursue his studies in accordance with this classification betrays the man who has fallen in love with a pet idea, and who would make everybody and everything conform to it, rather than to modify the theory to fit the observed facts. It is significant that Haufe's influence has been exerted almost altogether along the lines of a more heightened interest in nature study and a genetic approach to the problem of the organization of the curriculum into a course of study. But the bulk of his writings consists of minute accounts of how to teach when the pupil is studying, e.g., the third subdivision of the fourth realm. This has gone by the board, as it no doubt deserves.

3. Jessen and Hildebrandt

Jessen and Hildebrandt are individualists among the activity educators who, as we have seen, have said excellent things with regard to training to develop the esthetic sense. But they subordinate everything to the esthetic end, which is unbalanced; furthermore, in their enthusiasm for esthetic education they assert that the products of children's "creative activity" are art products. The educator with his feet on the ground realizes that if the pupil is enabled to appreciate art, the esthetic training has been successful. "Creative activity," the level-headed educator knows, will really mean re-creative activity for ninety-nine pupils out of a hundred; perhaps the proportion is greater still. The hundredth pupil, who is really able to create, has received the gift from God, not from the teacher.

4. Hamburger Gemeinschaftsschule

Lastly we have the *Hamburger Gemeinschaftsschule* (Community School) which we must set down as fanatic, because it applies the principle of self-sufficiency through self-help to extremes. The school is a community of workers divided according to the activity they pursue—

e.g., carpenters, machinists, etc. There are no classes, courses of study, hours of work, periods of recitation, etc. Each group conducts its own affairs in accordance with principle of "free discipline." The head of the school suggested to the authorities that the city turn over to the school the sum of money it expected to spend during the fiscal year; the school would undertake to spend that money, making repairs, etc. All kinds of instruction are given—by teachers, by parents, by outsiders. In short, there is so little plan, everything is so haphazard, that many an educator would deny that the Community School is a school at all, but merely a collection of shops in a public building where groups may work if they care to.

I. SUMMARY

The purpose of this chapter has been to trace the influences in contemporary educational eclecticism which have helped to shape the modern activity school. The essentials of the activity school have been inherited from the past, and the principles of activity pedagogy have been found in Comenius, Rousseau, Pestalozzi, Froebel and others. But modern educational eclecticism has modified the activity school by subjecting it to several types of influence. Among these are:

1. The movement leading to the *broadening of the concept of manual training*.
2. *The psychological influence*, resulting in redefining and elaborating the psychological basis of the activity school.
3. *The sociological influence*—on the whole the most potent,—resulting in emphasis upon the communal nature of activity both inside and outside of the schoolroom.
4. *The individualistic influence* resulting in the practice of individualization in instruction according to the needs of the child, and in recognition of the importance of personality development.
5. *The naturalistic influence* resulting principally in stressing the importance of nature and science, and in correlation between manual training and the sciences.

6. The influence of the great organizers and administrators, leading eventually to *the adoption of activity school as the form of public education* in both Austria and Germany.
7. *The negative influence* of the fanatics, whose suggestions were not accepted but who had a salutary effect upon the development of activity pedagogy in that they showed the danger of uncompromisingly taking an extreme position in education.

CHAPTER III

CRITIQUE OF ACTIVITY PEDAGOGY ON THEORETICAL GROUNDS

Up to this point we have been considering, in more or less chronological order, the various suggestions made by past and contemporary educators tending toward the establishment of what we still vaguely call the activity school. But it must have been apparent to even the casual reader that not all of these suggestions are of equal value; that, while some suggestions are basic and excellent, others are merely the crotchets of extremists. Not forgetting our intention to describe an activity school in detail, we nevertheless must pause for critical analysis of the rather inchoate mass of pedagogical suggestions which we have thus far gathered. We therefore propose to divide our critique of activity pedagogy into two natural divisions—the theoretical and the practical—and to take up these divisions separately in this chapter and the next. In either case the material itself will be classified, for convenience, according to its directional trend, according to the function of education which it is supposed to subserve, rather than according to the authorship of the material.

Man, as an individual, is a physiological-psychological entity; while theoretically it is impossible to divide this entity, practically it is of value to do so, and to consider man's physical and mental nature separately. To this dictum we may add another. *Man, generically, is both an individual and a part of an organism*; it similarly is practically possible to consider his individual and his social aspect separately. Education, therefore, must concern itself with three aspects of man—his physical nature, his mental nature, and his social nature.

A. MAN'S PHYSICAL NATURE AND THE HYGIENIC TREND IN EDUCATION

Physical education concerns itself with health and functional development of the powers and parts of the body, and is related to the sciences of physiology and hygiene. Many educators,¹ therefore, have urged the inclusion of pedagogical activity, in one form or another, in an educational curriculum, on the ground that such activity has value as being conducive to health. This may not be the chief reason for such advocacy, but it is a good reason. Health of the body depends upon the proper amount of use — neither too little, resulting in atrophy ; nor too much, resulting in over-muscularity and lack of balance. Activity furnishes the normal amount of use, diversified and distributed among the different muscles and parts of the body. Activity is, therefore, a means of fostering health, and the activity school is justified from this point of view.

But the problem of health is not settled merely by inclusion of physical activity into an educational scheme. It behooves the activity school to see that its activities are carried out under hygienic conditions, and that unhygienic conditions are eliminated. Some of these factors unfavorable to health are dust from wood, glass or metal ; unhygienic location of workrooms or shops, in basements with poor lighting or ventilating facilities ; unhygienically long hours. Such unhygienic factors are not inherent in the nature of pedagogical activity ; they are environmental only and can be controlled.

Another question which the activity school must answer is the question of the relative efficiency of pedagogical activity, as a health factor, in comparison to other accepted means for developing bodily health. These are gymnastics, unorganized play, organized play, and sport—all lay claim, not without cause, to being conducive to bodily health. These claims the activity educator will allow ; but, while it is no part of our plan to exclude gymnastics, sport,

and play from the group of recognized body-building activities of the school, nevertheless we believe that pedagogic activity is superior to all of them. For instance, gymnastics, which has the value of being organized so that all parts of the body are trained, is inferior to pedagogic activity because, as Spencer pointed out, it lacks the advantages of pleasure, zest, natural interest that inhere in pedagogic activity in which the pupil is, so to say, unconsciously active, because he is absorbed in the problem on which he is working.

Play has an advantage over gymnastics in that it is natural where gymnastics are artificial. Play, being naturally interesting and pleasant to the child, can be continued for a long time without fatigue. Furthermore, much group play is highly instructive, e.g., Cops and Robbers, Hide and Seek, which are reminiscent of the hunting stage of civilization. There are great educational advantages of play, and therefore free play is often the form which pedagogical activity takes, especially in the lower grades. Organized play also has its advantages, but there is always the danger in organizing play that the individual is too much subordinated to the group. When "team spirit" or social cooperation in organized play is stressed too much, the individual loses the sense of personal accomplishment which is an inherent factor in pedagogic activity.

Sport as a means of health building has, to a large extent, lost its value. Under modern conditions it has metamorphosed from a form of physical activity, undertaken for the pure fun of it, to a striving for record breaking, for winning. It does not train the body harmoniously in all its parts but goes in for great specialization with consequent one-sided development. It has lost its play spirit, and substituted for this the ethically questionable motive of beating the other fellow. We must conclude that sport cannot take the place of pedagogic activity as a means of building bodily health.

To summarize: if we conceded that health is an impor-

tant objective in education, we must approve of the activity school because this type of education has, in pedagogical activity, the most efficient means of building up the health and efficiency of the entire body.

B. MAN'S MENTAL NATURE AND THE DIDACTIC FACTOR IN ACTIVITY EDUCATION

In attempting a critique of the physical aspects of activity education, we found it necessary to have reference to the neighboring sciences of physiology and hygiene. If, in the same way, in order to have a basis for a critique of the mental or teaching aspects of activity education, we choose psychology as the basic science, we have difficulty, for psychology is not an exact science in the sense that physiology is, and mental phenomena, which are the province of psychology, have been variously recorded, described, and classified by different psychologists. Hence before beginning our critique of activity proposals from the didactic or educational point of view it will be necessary to state the psychological basis² on which we propose to erect our critique.

Most psychologists divide mental phenomena into three categories—ideation, judgment, and will. These three differ from each other in kind, but, although all are irreducible, they are not coordinate. Ideation, which includes sensation, perception, apperception, conception (all a single process) is the most independent because it can exist without judgment or will. Judgment, which includes reason, presupposes ideation, for we cannot judge a thing unless it is present in the mind as an idea. Judgment may, but usually doesn't, exist independent of will (which includes interest), because we can conceive of a being who judges without any emotional concomitant. Finally, interest or will cannot exist alone but presupposes ideation, and almost always, though not necessarily, judgment. To summarize: ideation is independent; judgment depends upon ideation; interest depends upon ideation and (usually) judgment.

Ideation, the only independent member of the psychic trinity, includes what the older psychologists have called sensation, perception, apperception, conception, all of these being but phases of a single process of idea-getting. This chain—sensation, perception, apperception, conception—starts with sensation which, therefore, becomes of peculiar importance to the educator as the means of, and the road to the formation of ideas.³ The educator, therefore, must know what the senses are, and what sensation is.

According to popular notion there are five senses; Aristotle says six, and some psychologists say nine. But for practical purposes educators may, and usually do, reduce the number of senses to three, namely sight, hearing and a third sense which is a nameless combination of taste, touch, smell, pressure, temperature, and the sensations arising through the bones, nerves, muscles, and the viscera. These three senses are coordinate in importance and are distinguishable because they differ in the quality of their respective sensation.

Once having established our psychological basis, we can proceed to a critique of the activity principle of education by observing the effects of the application of this principle upon the three types of mental phenomena (ideation, judgment, and interest) and upon the three separate senses (seeing, hearing, and the third sense). And since ideation, which is the only independent mental phenomenon, starts with sensation it becomes the duty of a critic of didactic processes first of all to examine what provision has been made for getting adequate sense impressions by the learner. Furthermore, it must be remembered that sensation is not only an elementary basis for higher learning, performed once and thereafter built upon, but also a continuing method of instruction on higher levels as well. For with opportunity for sensing comes practice, with practice comes efficiency in reacting to sensory stimuli, and as human sense experience increases, human sensitiveness (sense-acuity) increases also.

How, then, does the traditional school meet this duty of providing for a rich sense experience?

With regard to hearing, it provides altogether too much, quantitatively considered. Instruction is largely verbal—exchange of words which are appeals to the hearing. But with regard to quality and variety of appeals to the sense of hearing, it is noteworthy that the traditional school almost never furnishes a basis for the training of the hearing sense except by means of words, and to a very much slighter degree, in music, by means of pitch. In contrast the activity school would stress training in distinguishing between quality of sounds thereby making sounds other than speech intelligible to us. What can be done in this direction may be realized by recalling what the blind have taught themselves through their sense of hearing. They can determine the distance they are from the corner by the commingling of sounds which comes from the intersection of two streets; they know the height of building or hill and the depth of well or valley by the quality of the echoes they hear about them; they are our best motor technicians and piano-tuners because for them the sound of motor or musical instrument is pregnant with meaning; they know nature through the sounds of birds, insects, waterfalls, streams, the foliage in the breeze, the roar of the surf, the moan of the tide; they know when machinery is about to wear out, when the kettle is about to boil, when wood is almost seasoned and ready to be made into furniture; and ironically they are quicker at sensing a speaker's meaning than their sighted brothers in spite of all the talking, lecturing and reciting of the traditional school, because they have trained themselves to observe the nuances of the human voice as well as the concepts expressed by the words of a speaker.

With regard to sight, the traditional school also fails. There is considerably less appeal to sight than to hearing, less use of books than verbal instruction by the teacher. Great educators, such as Comenius, Pestalozzi and Froebel,

have often stressed the importance of sight but, through faulty and unnatural technique, have frequently vitiated their own best efforts. Thus an "object lesson" which consists of looking at a picture of an apple is pedagogically silly; the child senses a picture, not an apple. Pictures, models and descriptions have their proper place and use, but not as objects to be sensed. A true object lesson requires the concrete phenomenon to be present to sense, to all senses if possible, and consists of such concrete presentation divorced from all abstract associations. On the other hand there is more to training the sense of sight than merely substituting object lessons for verbal instruction, desirable as this change may be. The sense of sight must be trained by the activity school not only to the point of recognition but also to the point of critical discrimination. Pupils often fail in drawing, as we shall see, because their visual image of the object to be drawn is merely recognitional, not discriminative and accurately detailed. Wordsworth pities the man who merely recognizes.

"A primrose by a river's brim
A yellow primrose was to him,
And it was nothing more."

With regard to the other senses, the traditional school does even less than it does with hearing and seeing. There is some training of the muscular sense in drawing, writing and gymnastics, but the general sense of touch, which to the child is more valuable even than sight as a means of learning, is so little trained that adults remain clumsy and inefficient throughout life except when they happen to be mechanics; most of these, even, are proficient in but one skill.

Activity pedagogy would change all this. In manual activity, for instance, the kinesthetic sense would be trained, and, through repeated practice, result in perfection of bodily movements, first on the voluntary plane, and finally on the involuntary plane as such perfected bodily movements

become mechanical. That is technique—a point at which the mind and spirit seem to reside in the muscles themselves that perform the act. The ease and effortlessness of all great art has frequently been remarked, but the fact of the matter is that, whether the execution of the artistic creation is in fact or only apparently effortless, the acquisition of an “effortless” technique is a long process and one that requires sustained effort of a high order. The trained athlete—golfer, sprinter, fencer—may not be exactly an artist, but the technique by which he coordinates all the powers of his body is closely allied to art. At the point of technique the hygienic and didactic values of activity merge; bodily powers and mental control have become developed to their highest degrees.

On the other hand the two so-called higher senses would also benefit from an activity type of pedagogy. As to seeing, it is to be noted that, as the child handles an object, he presents it to the eye in a different form or from a constantly changing angle. There results an enormous complexity of images, and this complexity adds richness to the concept based upon visual sensation. Seeing, in activity pedagogy, is not merely the passive reception of light stimuli upon the retina, but to really “see” the active observer must include ideation and judgment. Hearing, it is true, tends to be neglected in the activity school; therefore the teacher is specifically warned against the danger and reminded of the importance of speech, in a curriculum of activities, as a means of expressional activity.

Since the elements of sense impressions are two, a quality and the space where that quality resides, the activity school must base its procedure in object lessons on these two elements. Froebel has shown, through his utilization of play, how that can be done; on levels higher than the kindergarten, activity can be regarded from the didactic point of view as a development of play. Play merges into work or activity when the focal point of interest shifts from the act itself to the intended result of the act.

But the activity school also gives direct training to the judgment. For instance, if the child is engaged on a piece of construction, he must constantly note whether the object he is fashioning is of the right size, shape, color, etc. He must constantly compare the concept of what the object is in its unfinished state with the concept of what it should be. This involves judgment. Similarly, when he judges which of several possible steps he must take, which tool to apply next in order to bring the unfinished product closer to the finished idea, he again utilizes judgment. He must judge of the effectiveness of the techniques he has applied to evaluate his own work, and this again is judgment.

Summary: From this brief discussion it is seen that activity pedagogy is justified on didactic grounds. It recognizes the fundamental nature of the object lesson in the learning process; it establishes a planned routine for making the object lesson so rich in sensory experience that all the senses are given opportunity for development; it gives training to the mental powers of ideation and judgment; it results not only in knowledges but in techniques that are valuable both in the immediate present and also in the future.

C. MAN'S SOCIAL NATURE AND THE HODEGETIC⁴ FACTOR IN ACTIVITY EDUCATION

In our analysis of the nature of man at the beginning of this chapter we noted that, as man generically is a part of an organism, education must have a social aspect. This social factor in education is closely connected with the training of the third category of mental phenomena which we call interest, but which includes the will, the emotions, and the feelings. That part of education which concerns itself with the training of this complex of will-emotion-feeling-interest may be called hodegetics or character building. Hodegetics may be divided into two parts—negative and positive. The former is prohibitory, gover-

nance to prevent wrong; the latter direct character building, the doing and making habitual the good.

The critic of the activity school who wishes to evaluate its hodegetic effect, must first establish a basis for criticism by application to related science. In the case of a criticism of activity school didactics the related science, as we have seen, is psychology. But in evaluating the hodegetic effectiveness of activity pedagogy we must refer not only to psychology but to ethics.

Psychologically it is difficult to trace the relationship between pedagogical activity and interest because of the great diversity of forms in which interest may manifest itself, and because these manifestations appear sometimes as immediate effects, at other times only after a lapse of time. However, all manifestations of interest involve a degree of love-hate; other psychologists call this scale one of pleasure-pain. Graphically the scale might be represented by a horizontal line divided in the middle by a transverse marked O, representing the point of indifference on the scale. To the left of the midpoint a series of gradations from O to D indicate rising degrees of dislike (D); to the right of the midpoint from O to L a series of gradations from O to L indicate rising degrees of liking (L). On such a scale, a wish would be somewhere on the L side of zero; it concerns itself with something not present to sense but regarded as possible. In willing there is a wish, the sense of its possibility, also the determination to bring it about. Hence the latter is further to the right on this scale than the former.

But the hodegetic effectiveness of the activity school cannot be evaluated, as we have seen, without recourse to ethics. Specifically we are concerned with moral judgments which can take place only after reflection on relative values. Such evaluation involves not only the judgment but also the interest-will. A thing is valuable if it is desirable, if it is to the right of the zero mark on our scale. Every evaluated thing is itself a value, but this value is al-

ways measured against something in the mind—a sort of touchstone which the mind sets up to measure values. This touchstone is the concept of the good. What each pupil's individual concept of the good is, is extremely important for hodegetics.

Each individual carries about with him in his "heart" or "conscience" his own private love-hate or pleasure-pain scale. No one can know with certainty how an individual privately evaluates the various values which come before him for consideration. Our hodegetics have been successful to the extent that the ethical, the moral, the noble are far to the love end of the individuals' love-hate scale; conversely, to the extent that the morally, socially or ethically despicable are not only not a matter of indifference—the zero point on the scale—to him, but are inwardly judged as evil, painful, hateful.

But this presupposes that we know what the good is and can distinguish it when we come into contact with it. As practical educators we can agree that we may call a thing objectively good or valuable if it is impossible for us to evaluate it without having it call forth our admiration, love or esteem; without finding it, in other words, of itself right or just. We have such an ability to judge the good in our inner knowledge (conscience). The good is co-ordinate with and analogous to the true; what is right in the field of interest is analogous to what is right in the field of judgment. In the same way in which we can judge whether a thing is true or not, we can also decide whether a thing is good or not.

But the knowledge of the good develops into the ability to distinguish between the good and the better. We get this power as a result of experience in judging—that is, in preferring, or evaluating according to the like-dislike scale of interest. A given act is judged good, bad or indifferent by placing it mentally in juxtaposition to a conceived good, just as in a judgment in the intellectual field, it is judged true or false.

From the standpoint of this concept of the better we can solve the problem that is so vital to pedagogy: What is the highest practical good? Pedagogically it is to aspire to the highest attainable good, to make oneself as useful, as valuable, as possible. The moral end or aim is to care for and take part in the achievement of the universally best (greatest good for the greatest number), and this program frequently calls for altruism and self-sacrifice. The highest good is to labor for the benefit of others for, as Froebel puts it, "Man, so engaged on altruistic work, shows his kinship to his Creator."

We have now sketched out the psychological and the ethical basis from which we may evaluate the hodegetic effectiveness of the activity school. Roughly speaking, negative hodegetics, sometimes called moral prophylaxis, rests upon a psychological base; positive hodegetics upon an ethical base.

i. Negative Hodegetics in the Activity School

The naive attitude is to keep the child busy so as to keep him out of mischief; there is, of course, something in this, but such an attitude would equally justify repressive discipline which also would give the child no opportunity for wrong-doing. An educational system has to be better than that in order to merit approval on the ground that it is character building. Psychologically the situation of idleness conduces to boredom, a feeling which is on the negative or minus side of our like-dislike scale. To relieve it, the pupil undertakes activity of some kind, which may be socially desirable or socially undesirable. Activity pedagogy acts as moral prophylaxis not only in supplying the child with something to do which is socially desirable, but also by seeing to it that this activity is accompanied by a pleasurable feeling tone. It can do this because it selects a socially desirable activity which is at the same time (*a*) pleasurable in itself, and (*b*) such that the product or accomplishment of the activity is also pleasurable. In other

words, the hodegetic value of the activity school, even on the negative side, is not merely inhibitory of the bad but has some positive elements in it as well.

2. *Positive Hodegetics of the Activity School*

We have already seen that, when the interest is heightened, desire changes to will-to-act. The resultant act of the will may be either direct or indirect, depending upon whether the desired change in the state of things can be brought about immediately or only through intermediate stages that lead up to the desired state. The latter is always the case with pedagogical activity, which can be described as a series, or chain, of acts each one of which is related to and based upon the preceding one. Pedagogical activity, in other words, causes the pupil to perform a continuous chain of acts of will.

But this is an over-simplified picture. Actually there are always present in such a chain numerous secondary motives, which focus about the question Why. When these secondary motives are of two kinds—positive and negative, or, stated another way, propulsive and inhibitory—we get a conflict of motives which must be resolved. In activity pedagogy the most important secondary motive is always the purpose of the activity, and it is through this purpose that the pupil is enabled to judge the effect of his immediate act upon the chain of acts through which he expects to reach the purposed goal. So whole systems of proximate and ultimate purposes arise and condition the will.

We can illustrate this point very simply and at the same time contrast the practices and relative effectiveness of the traditional school and the activity school. In the former, the pupil may have been given an assignment by his teacher — say he is to write a business letter as his homework for the next day. Now the purpose of the teacher may be very clear in his, the teacher's, mind, but practically the purpose of the pupil in writing the business letter is to "get by"—to achieve a satisfactory mark, or to avoid cen-

sure by the teacher or the parent. If then the opportunity to cheat by having someone else write his business letter and palming it off as his own presents itself, the pupil may well feel that the purpose of writing the letter has been achieved—he “gets by.” By contrast, in the activity school such a situation has a completely different context. The homework hasn’t been assigned as an arbitrary act of the teacher but has been assumed by the pupil himself as a voluntary duty and necessity. The purpose is no longer for the pupil to “get by”; the purpose is a social purpose which induced the class, the work-community, or a delegated portion of it to perfect themselves in business correspondence so that they will become more useful members of the social group. Whether the pupil “gets by” is therefore beside the point; the pupil must judge of his possible act of cheating in the light of the effect this individual act will have on the larger social purpose.

But the pupil must not only resolve the conflict of motives, he must also choose the particular act—he must do. Here activity pedagogy shows its hodegetic superiority over traditional pedagogy, for the latter, almost always, contents itself with giving advice or good precepts, while the former requires the pupil to act. Suppression of the act, the deed, in moral teaching leads to repugnance, which slowly fades into a state of indifference, and the impulse to do the right is lost. In activity pedagogy, on the contrary, the deed follows the moral judgment and a pleasurable feeling tone results. Every opportunity for doing, in cooperation usually with others, is taken; a fund of will-power is thereby created which will be of inestimable value throughout life.

In this connection we may again contrast practices in the traditional school and the activity school. In the former the social desirability of helping the less fortunate may be beautifully motivated by a discussion of some notably altruistic act—Father Damien amongst the lepers, for example. But with the admonition that the pupils also help their less

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fortunate fellows the lesson characteristically stops. In the activity school the impulse is immediately capitalized, and the class makes dolls or airplane models for the children in the neighboring hospital. Not that everything is as simple as that; there are situations which present as great a difficulty for the teacher in the activity school as for his colleague in the traditional school. If, for example, the conclusion is reached that truth telling is desirable and lying despicable there is not much that either teacher can do to translate present moral fervor into overt act. But both teachers would be wise to bring up such discussion at a suitable time; for instance, at a time when a conspicuous act of truth telling by a pupil to his apparent disadvantage raises the opportunity for praising and commanding the honest deed. It nevertheless remains true that wherever possible the moral impulse should be utilized and strengthened by appropriate expression in conduct.

It is to be recognized, of course, that activity as such has no hodegetic character; it is only when moral judgments are involved that doing is positively hodegetic. Sometimes these moral judgments arise by themselves, in which case we have the beginnings of self-education. At other times these judgments come as the result of suggestion by the teacher. In either case, the pupil puts the precept into practice, either through his individual activity or in cooperation with his fellows. Through the practice in putting moral judgments into operation he establishes the habit of good willing and good doing. Such habits are virtues, for the idea of a virtue implies permanence and constancy. In this way morally motivated activity leads to development of character.

The hodegetic effect of the activity school is our hope for a better society. Only through a change in human nature can we solve our great social problems. The road to a better social order via a changed and improved human nature is long and hard, but it is the only road. Legislative short cuts of the professional Utopia-builders have

never worked; the slow process of education is our only hope.

In short, if pedagogic activity is not the only way through which to achieve character building, it surely is an important way. From the point of view of its hodegetic effect the activity school is justified.

D. SUMMARY

In this chapter we have seen that, from the theoretical point of view, every system of education must concern itself with the threefold aspect of man. Man is a physical being, and therefore requires education along physical lines; this gives rise to the hygienic tendency in education which is related to the contiguous sciences of physiology, hygiene, anatomy, etc. Man is also a mental being, and requires education along mental lines; this gives rise to the didactic tendency in education, which is related to psychology as its basic science. Finally, man is a social being with responsibilities, relationships, rights and duties within a social group, who requires education along the lines of these duties, rights, privileges and relationships; this gives rise to the hodegetic tendency in education based upon the contiguous sciences of sociology, ethics and religion. From each of these three points of view we have found the activity school superior to the traditional school.

CHAPTER IV

CRITIQUE OF ACTIVITY EDUCATION ON PRACTICAL GROUNDS

The theoretical division of education which we made use of in the last chapter is found very useful whenever we want to examine critically the content of an educational system, for by it we are enabled to appraise the educational system from the standpoint of the relative weight it gives to each of the three factors. In actual practice these three factors, however, are never found isolated, but always blended with one another in varying proportions. So it becomes necessary for a critic of education to classify and appraise systems of education not only by a process of analysis whereby the educational system is resolved into its component hygienic, didactic, and hodegetic factors, but also by a corresponding synthetic process—a process which puts these factors together into an educational system, and, by so doing, gives each individual educational system its practical form. From this formal, practical point of view, there are three characteristic forms which education can take, corresponding roughly to the three theoretical tendencies which we have examined in the last chapter. Generally speaking, an educational system which emphasizes the hygienic aspect of education—which emphasizes the needs of man as a biological entity—such a system of education is naturalistic. Similarly, if a system of education emphasizes man's mental needs—man here being considered as a self-contained spiritual entity, and not generically as part of a greater organism—then that system of education is largely individualistic. And finally, when man is viewed generically as part of an organism called society, when the corresponding relational needs are emphasized in a system of education, then the form of that educational system is social.

It is our purpose in this chapter to appraise each of these three forms of educational systems—the naturalistic, the individualistic, the social—and to show how these forms are related to the activity school.

A. PEDAGOGICAL NATURALISM AND ACTIVITY EDUCATION

The form of a system of education, e.g., the naturalistic, is determined by its goal. But what is the goal of naturalistic education? Since the naturalistic educators deny existence outside of nature, it follows that the goal must be found within nature. But where, in nature, should we locate our goal? If in man, who is a part of nature, then the naturalistic system breaks down into either individualistic or social education, depending upon whether we make individual man or generic mankind the center of education. If we locate our goal in the non-man part of nature, we fall into the dilemma of drawing an aim for the education of man, who is on the highest stage in the evolutionary process, from the lower evolutionary stages. Lastly, if we locate our goal in nature as a whole, then education would be nothing more than living according to nature; for man, being a part of nature, is evolving according to natural laws. But if we adopt this viewpoint, which is that of the thoroughgoing naturalist, we theoretically can't do anything about man's education; for man, being a part of nature, will live according to natural law, no matter what he does, or in what direction he grows. All will be "natural development." Practically, however, the teacher watches the child's development, and either encourages or discourages traits which the child evinces from time to time. But to do that, the teacher must have a criterion, which he can't draw from nature because all the child's traits, good or bad, are "natural" and they manifest themselves and develop according to nature. Accordingly naturalistic pedagogues usually draw their criteria from ethics, with the result that naturalistic education again fails to find a goal for itself within nature.

This inability of naturalistic education to set the goal is caused by the naturalist's misconception of the place of man's intellect with regard to nature. Human intelligence is natural in the sense that it was evolved according to the laws of nature ; but it also is in some respects super-natural, for it stands above nature and at times is even opposed to nature.¹ To the extent that it conquers nature, it creates civilization and humanity.

What does the activity school then owe to the naturalistic form of education ? Certainly not its aim or goal, for the naturalist cannot set a goal for education within the limits of his own philosophy. Nor is the activity school indebted to naturalism for its use of activity as a means of education, because the activity of nature differs from the activity of man in that the latter is always purposive and conscious, and sometimes, as we have just seen, opposed to nature. But we do owe naturalism a great deal with respect to methodology — the emphasis on natural method, which takes account of the natural development of the child ; the emphasis on the importance of the natural sciences ; the emphasis on object lessons and lessons to train the senses ; the arrangement of subject matter in accordance with the child's unfolding interests. In these matters the naturalists were right ; to this extent, the activity school has incorporated their teachings in present-day practice.

B. PEDAGOGICAL INDIVIDUALISM AND ACTIVITY EDUCATION

Let us start our discussion of the individualistic form of education by noting the relationship which exists between naturalistic and individualistic education. That relationship is based on the didactic principle common to both forms : "According to nature." Taken objectively, this principle determines the form and course of individualistic education — a form of education which emphasizes the individuality of the child, his personality, the development of his natural powers.

i. Psychological Basis

Pedagogically, the basic powers of the individual are those which are known as reflexes and instincts. The former are inherited reactions to stimuli without the need of the interposition of consciousness or will. Under certain conditions the consciousness or the will may interpose, in which case we have one of several possible results of an educational process: (*a*) Complete suppression of the reflex action. The pupil "learns to control himself"; (*b*) "Conditioning the reflex." This may consist of

1. Substituting a new reaction for the original reactions. (Suppression as in (*a*) above is really a form of substitution.)
2. Substituting a different stimulus for the one that originally brought about reflex reaction.

Instincts have been defined as inherited patterns of mental behavior differing from reflexes in that consciousness normally intervenes between stimulus and reaction. While psychologists cannot agree on their number and variety, there is agreement on the fact that pedagogically one of the most important instincts is the instinct for movement, for activity in the physical sense. To the extent that individualistic education makes use of this instinct for activity in the child, it supports the activity school, which utilizes the principle of self-activity both as subject matter of education and as a principle of educational method. However, both types of education must show that the instinct for movement has an effect upon the mental development of the child. This becomes possible if a common factor can be found in physical movement and in mental development. That common factor is the will.

So long as the child reacts reflexly to stimuli, no education has taken place. But as soon as he has succeeded either in repressing the reaction or substituting another for it he has learned through interposing his will and con-

sciousness between stimulus and reaction. He hasn't really "conditioned the reflex" until the new response has become automatic; he must therefore have learned, not as the result of a single interposition of the will, but of many repeated interpositions. In the same way instinctive reactions become educative only to the extent that, through the interpositions of the consciousness between stimulus and reaction, modifications take place in the inherited pattern of behavior. In short, voluntary actions thus grow out of instinctive actions, and the pedagogical value of instinct has been established.

But not all our actions can be thus traced to simple beginnings in reflex or instinctive actions; indeed the majority of our voluntary movements such as writing, speech, drawing have no such genesis, but originate apparently in trial movements which we make innumerable times until we hit upon a movement which is either adequate for our purpose or nearly so, and which we then perfect through control until the movement becomes wholly appropriate to our purposes. Activity pedagogy recognizes this second origin of motor skills as well as the origin of some skills in reflex and instinctive action, and gives opportunity for the development and perfection of both kinds of movement.

Bearing in mind the fact that some of our movements arise in reflexes and instincts, others in accidental trial and error movements, we are enabled to appraise Froebel's psychological order of impulses. Following Fichte, who said that action (doing) was basic in man's mental development, Froebel, and a large group of educators including Dewey, set the order of mental impulses as doing, conceiving, thinking. He was right, of course, to the extent that some of our actions are based upon reflexes and instinctive actions; but wrong when he included voluntary actions which cannot take place without interposition of the will. For the will cannot function, as we have seen, unless there is a basis for it in ideation and judgment. We can analyze

the learning process into its three elements—impression, digestion, expression—as Aristotle has done, and as all educators since; but we cannot determine the order of these steps. There must be a constant play of doing, sensing, thinking, expressing, etc., in whatever order the exigencies of the situation require, and a fixed order, be it Froebelian,² or Comenian,³ is a strait-jacket which deprives the pupil, and the teacher too, of the power of self-activity.

2. Segregation of Pupils into Types

Individualistic education aims at a natural development of the personality or individuality of the child. Strictly speaking, therefore, there should be as many systems of education as there are individuals to be educated, for each individual child is different from every other child. As this is an impossible situation, it is necessary to adopt the practical technique of dividing individuality into types. Individualistic education in practice is that form of education which places most emphasis upon the classification of pupils into various types of individuality, and which modifies the teaching process, the curriculum, and the organization of subject matter in accordance with the several needs of diverse types of individuality. This is not a simple matter, for there are many important categories of types—e.g., sense types, memory types, attention types, expressional types—and the number of categories may grow as other aspects of education become important through changing conditions. Furthermore, the individual child may belong to more than one type of a given category; or he may, through environmental and experiential factors, change from one type to another. We must, therefore, guard against the mistake made by the enthusiasts, who test dispositions by means of a standardized test, of dogmatizing about disposition types. The subject is extremely complex, the field of possible investigation hasn't begun to be covered, and we have yet much to learn. On the other

hand, the incompleteness of our knowledge is no reason for disregarding whatever facts we have ascertained up to the present.

a. Sense perception types

One variation in human beings, which is immediately noticeable to the teacher, lies in the field of sense perception. This variation may take one of two forms. Pupils differ with regard to acuity of their sense impressions, or they may differ in their natural predilection for using one or other of the avenues of sense as their efficient means of learning through sense impressions. In the former case the difference usually rests upon a physical condition, and, to the extent that physical disabilities may be compensated for, these differences can be lessened. For instance, a pupil with naturally poor eyesight can often be helped through glasses. But the difference in pupils with regard to their choice of sensory means of getting knowledge is inherent, and the wise teacher must treat eye-minded, motor-minded or ear-minded pupils differently. For didactics, the important finding of psychological investigators is that there are far more children who are inherently motor-tactile-minded than had been suspected before the results of these pedagogical experimenters became known. For such pupils little has been done in the traditional schools, and it remained for the activity school to remedy this defect by emphasizing the importance of the third sense, especially for the younger children.

b. Memory types

Parallel to sensory types are memory types; individuals differ in the efficiency with which they recall visual, auditory or kinesthetic images. The activity school not only furnishes practice in all types of recall but strengthens the recall and insures accuracy of image by taking account of both dynamic aspects of memory—the time element and the quality element. Pedagogical activity consists of con-

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stantly repeated acts performed under differing conditions. Thereby the time element of memory is served through repetition, and the quality element through richness of association bonds forged under a great variety of differing circumstances.

c. Attention types

A third category that individualistic education notes is that of attention types. Psychologists have investigated quite fully the difference between voluntary and involuntary attention, and the steps that the teacher may take in transmuting the one into the other. But the individualist points out that pupils differ with regard to the quality of stimulus which enlists their involuntary attention. All the different attention types are stimulated in the activity school so that the pupils' individualities are best served in this regard.

d. Other types possible

So also with imaginative types and expressional types. The former category may be divided roughly into abstract and concrete types; the latter into objective and subjective. The individual needs of both types in each of the categories are met through the rich program of the activity school.

e. Two group types

While each individual child belongs to one or more of the types in each of a large number of categories, we can also lump mental characteristics together and find that two great types of human beings emerge—the theoretic and the practical. When these types are raised to a high level of development they become respectively the thinker and the hero. (Of course no one belongs exclusively to either type.) These two great divisions of mankind arise from the fact that in the mental trinity—ideation, judgment, will—the first two members tend to coalesce. For the thinker type of mind these are the more significant;

for the doer type, the will is more significant. It is the business of the educator to furnish plenty of opportunity for growth to both types of individuals, and the activity school does this. The true activity school does not abolish *instruction* (the inculcation of ideas) for that would be unfair to the thinker type. Nor does it, like the traditional school, abolish *training* (the development of the ability to do) for that would be unfair to the doer type. Instruction and training, thinking and doing; that is the solution. These must be sometimes apart, sometimes side by side, sometimes fused. In that way true individual instruction will take place. Each will receive opportunity for activity in the field in which he does best, but each will also be stimulated in those fields in which he would make but little progress if left to himself. All will be democratically "treated alike" in the sense that each will be given opportunity for the development of all his powers.

3. *The "Child-centered School"*

Individualistic education frequently takes the form that has been called "the child-centered school." This type of education demands not only that methodology be determined by the needs of the child, but also that curriculum, arrangement of subject matter into courses of study, and even organization should also be determined by these same needs. The views of these educators are based on the findings of the experimentalists in education, but it will be seen that their specific recommendations as to methodology, curriculum, organization, etc., can be practically realized only through the inclusion of pedagogical activity in the curriculum. It follows that the more experimental pedagogy and pedagogical research prove the importance of such methods, the stronger becomes the case for the activity school. On the other hand, in our enthusiasm for activity on the part of the child, we must not forget that there also are children who are by nature passive, not naturally

adapted to learning through manual and bodily activity. Such children would be as much lost in a pure "doing school" as most children are lost in a pure "learning school." The presence of this type of child emphasizes the importance of combining learning with doing in our new pedagogical setup.

4. *Esthetic Education*

Before concluding this critique of individualistic education let us examine one phase of it which has gained some prominence in recent times. That is the esthetic trend in education, which, because its advocates stress the importance of spontaneity in the production of art by the child, is rightfully connected both with the individualistic type of education and, through methodology, with the activity school. Our criticism of this trend in modern education centers about its aim, which is, on the one hand, too narrow to serve as an aim for general education, and, on the other hand, is impossible of fulfillment. The aim of the educational esthetes is beauty, its creation and application. Now beauty is ideality of representation — that is, it is perfection in the ideational part of the mind. Can one of these three coordinate parts of the mind furnish the entire aim of education? Obviously not. Furthermore, when these educators speak of beauty of thought or beauty of feeling, they are merely indulging in figures of speech. Ideality of the second department of the mind is truth — ideality in the field of judgment. Ideality in the third department of the mind is virtue — ideality in the field of the will. So the aim of beauty must be rejected as too narrow.

But the aim of beauty is also impossible of achievement insofar as it contemplates the creation of beauty by all the pupils. Creative artists are born, not made. For the vast majority of people the special artistic talent does not exist. Hence we must reject Dewey's classification of self-activity into four forms: (a) cooperation, (b) research, (c) pro-

duction, (*d*) activity on the art plane; on logical grounds, also, for it doesn't follow a consistent principle of division, nor does the sum of the species equal the genus. Dewey and Jessen both think of the child—every child—as possessing natural artistic talent. But in this they are wrong: there is exuberance of production in the child, but it is copywork, and its variation from the model, regarded by Dewey and Jessen as evidence of originality, are but the result of a childish lack of self-criticism. The child lacks creativeness in the true sense, and cannot engage in self-activity on the artistic plane.

On the other hand, when these educators purpose to increase appreciation of beauty, they are on firmer ground. We are indebted to them for pointing out to us that appreciation is not mere passive receptivity, but an activity in which ideation, judgment, and interest-will all participate. The aim to raise the appreciation level of all people is therefore entirely feasible, especially if the pupil is given every opportunity, as in the activity school, to express his appreciation of forms of art on his own level—the level of artisanship or handiwork.

To summarize: There is no doubt about the great debt which activity education owes to the pedagogic individualist. This is especially so in the field of method, for the practical application of the principles of individualization in education means that, through great variety of method, stimulation, appeal, and encouragement, we make provision for all of the many different types of individuals we find among the pupils. To repeat what was said above, the more experimental pedagogy and pedagogical research prove the importance of individualization in instruction, the stronger becomes the case for the activity school.

C. PEDAGOGICAL SOCIALISM AND ACTIVITY EDUCATION

Generally speaking there are four types of social education which differ from each other according to their differing aims. They are:

1. Industrial, or economic, education
2. General practical education
3. Specific practical, or career, education
4. Education for citizenship

1. Industrial, or Economic, Education

This type of social education attempts to alleviate human suffering by raising the economic standard of the family. Its motive is utilitarian and humanitarian, and its method is an advocacy of instruction in manual training by which the child, and later the adult, will be enabled to earn money. Specifically, it believes that by giving the child certain technical skills he will be enabled to produce, through home industry, articles which will have a commercial value, through the sale of which he will raise the economic standard of the family, or, in case of industrial crisis, enable the family to survive.

We must reject this form of social education. Perhaps before the industrial revolution, when home industry was the norm of production, such educational help was useful, indeed even vital. But under modern conditions the family status cannot be benefited by home industry. As Clauson-Kaas discovered, it is in just those fields of industry in which children conceivably can take part that mass production in factories is at its height. Into the very fields of production in which the artisan, who owns his own tools and works at home, has been so decisively beaten by the factory, it is proposed to lead the children, to produce at the sacrifice of an enormous amount of time and effort, and at the cost of lowered health. To train the child in the production of goods for the sake of the money such goods would bring would be cruel in its effects.

The moderate advocates of industrial education, however, would not urge children to earn, but aim at increased efficiency of the adult in later life. The aim is still utilitarian; the adult is to be enabled through his manual skills better to support his family. But on closer examination

this means merely that he will be enabled to survive industrial crises. For he normally works in a factory, and it is only in out-of-factory time that he can supplement his wages through the products of his home industry. In effect that means increasing his already long hours of work, or, in depression times, trying to sell articles which just in depression times have least value. For it is to be noted that during an economic depression those goods drop most in value whose cost of production is largely the cost of the labor involved. The home industrialist cannot produce steel rails, for example, whose cost is almost all in the value of the raw material ; he sells articles in which the cost of raw material is negligible, and thereby further depresses the already glutted labor market. So, on examination, this type of industrial education is found to be no better than the other.

There remains the extreme type which we have already rejected as a form of fanaticism — Blonsky's industrial school. He would make mass production the subject matter "taught" in school and would have children produce in mass quantity. Blonsky may call this a school, but it is indeed a factory, not a school at all. Only a person who knows nothing of child nature or child psychology could be guilty of the error of thinking that children enjoy mass production, or that they benefit by it in health or in mental vigor.

2. Emphasis on General Practical Training

The advocates of this type of social education would include pedagogical activity and manual training in the educational curriculum, not for its economic utility, but for its cultural value. Manual dexterity is of great value to all classes, not only to the manual worker but to the white collar worker and to the professional man as well. This point of view is now generally accepted by everyone, and is therefore no longer controversial.

3. Specific Manual Training: Career, or Vocational, Education

The proponents of career education base their suggestions on the broad ground that the individual takes his place in society and becomes significant through his career. Career, or vocation, makes the whole man ; career education, therefore, is supposed to have an aim which does not differ essentially from the Herbartian. Of course, this is a mere quibble ; effectiveness in one's career is admittedly important, but the individual is certainly more than the sum total of his public functions.

However, the question that the advocates of career education raise is not one that can be cavalierly disposed of by denial of their premises. The fact remains that the majority of people are engaged in manual careers, and that the rise of the machine has required correspondingly greater skill and specialization in the forms of manual work. This majority has the right to expect training from the system of public education. Even the minority who will not be dependent upon manual skills would greatly benefit from the acquisition of manual techniques ; practically by increasing their all-round efficiency, and culturally through greater appreciation of the products of labor and the dignity of the manual worker. The careerists also point out that, in the final analysis, the well-being of the state rests more upon the efficiency and happiness of the workers than upon the number of bayonets in the army.

Furthermore, it is claimed that with the rise of the machine the need for public school career training is increased. Before the industrial revolution, career education centered first about the family, then was finished through the guild. The present apprentice system is largely a farce except in the field of farming, where instruction, because it still centers about the home, can be practical and can operate effectively. Because of the weakness of our apprentice system, there is a definite inferiority

in our manual (as opposed to factory) products when these are compared with the manual products of the Orient, where industry still remains centered in the home. To meet the situation, Western education has evolved special vocational schools, but these do not operate at highest efficiency because, as the general schools do not give any preparatory training, the vocational schools, which should be the final step in vocational training, must begin with the rudiments. It is as though the pupil entered college without having first gone to grade and high schools. The result is a great waste of time and energy in the vocational schools, and this, together with a crass contempt for manual work among the white collar workers, in turn leads to an over-crowding of intellectual schools and the creation of a dangerous white-collar proletariat.

These conditions require remedy, which must take the form of career instruction in all our schools. The remedy does not mean that general education is expected to produce skilled workmen or artisans, but it does mean that the fundamental manual skills should be made available for all so that the blessings of new attitudes, new abilities, and new insights might spread throughout all classes.

We cannot, therefore, reject the vocational aim *in toto*, for there are social values that inhere in career education — values which any system of education can ill afford to lose. These social values of career education, however, can be best secured through a system of workshops, organized in activity schools, to induce manual dexterity.

4. *Education for Citizenship*

Logically, education for citizenship is part of the movement for career education. However, in its extreme position, as found in Kerschensteiner, career education is the means whereby the citizen of the state is to be developed instead of the end regarded as sufficient unto itself. The distinction between Kerschensteiner's position and that of

the other educators who stress the social aspects of education is that the center of interest has shifted. In movements for home occupation and home industry the chief factor is the pupil in the family ; in movements for practical general training and practical specific training (career education) the chief factor is still the pupil and, to a lesser extent, the family and state. But Kerschensteiner's system is state-centered—in the sense in which we speak of the child-centered school of the individualist in education—and is a part of the greater tendency toward social education.⁴

Recognition of the fact that the child is a member of a social group goes back to Pestalozzi, and many attempts have been made to create this communal group in miniature about him. Schools, as at present organized, already do a great deal in the direction of social training and the inculcation of the social virtues. But this training is too frequently only on the surface, outwardly harmony but inwardly disruption, order rather than discipline, a thing of form rather than of the spirit. Even in the so-called "self-government" schools we have the form rather than the spirit of community life, and class feeling remains. These attempts at creating a society in miniature about the pupil rest upon two fallacies: the pupil cannot be invested with full sovereignty, nor can we allow him to act upon the principle that the law applies only to him who has taken part in formulating it, nor upon the equally impossible principle that whatever has been decided by the majority is *ipso facto* the law for all.

Instead, therefore, of taking over the forms of community life—Senate, City Government, Junior Republic—it would be better to take over the spirit, and that spirit is found in communal work. Transform the school into a community of work, and the forms necessary for its organization and functioning will be engendered out of its spirit. Self-government schemes waste time and energy in disputatiousness, and the teaching of civics which they inci-

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dentially achieve can be better done in a civics class. But if the school is a true work community such waste of time does not take place; first, because the evil effect of such practices is immediately apparent to all in the stoppage or hindrance of the work, and, secondly, because in a true community of work the leadership of the teacher hasn't been abrogated in advance. The pupil in a work community gets to know his rights and his duties, both naturally growing out of his and his fellows' legitimate needs. So the social virtues are developed in actual practice, and the chief end of education becomes development of general usefulness of the individual to society.

How can we organize a school into a community of work? Pupils should work together in classes—that is already being done. Group them within the class so that each group has its own specific problem, but all contribute to the whole. Finally, within the group, associate pupils who are mutually sympathetic and will work well together, in sub-groups of three. One of these is for the time being their leader in discussion and work. In this way the individual will not be lost in the group, but has a life and a duty of his own. So much for the organization within the class. Above the class, the school should be organized into a work federation so that all classes are engaged in work which contributes to the whole. The entire plan is difficult of putting into effect, but is worth the effort, for only through real community of interest and work can the proper training in doing and altruism be given to the children.

Kerschensteiner and his associates have an important contribution to make to the activity school in that they emphasize the value of communal activity and show how activity can be organized so that it will have a functioning social value. On the other hand, education is not solely for the benefit of the state, nor is citizenship the only significant part of the life of the individual about which society should concern itself.

D. SUMMARY

In this criticism of the forms of educational system, we have seen how the activity school has profited by the experience of these three forms of education. To naturalism it is indebted for methodology and subject matter; to individualism, for its recognition of the different types into which individual pupils fall and the consequent need to treat different types differently. Finally to social education, the activity school is indebted for its emphasis upon the importance of social living within the school and the resulting internal organization which social education has found best for its purpose, the work community type of organization.

CHAPTER V

WHAT IS AN ACTIVITY SCHOOL?

From our historical study of the origins and development of the educational principles and practices associated with what we now call the activity school, and from the critical analysis to which we have subjected these proposals from both the theoretic and the practical standpoint, two salient facts stand out clearly and convincingly. These are: first, that the activity school is not the creation of a single pedagogical philosopher, not the product of a closely associated group of pedagogical thinkers working together toward a common end, but is, on the contrary, the result of a slow growth of pedagogical doctrine and practice to which the most diverse types of educational movements have contributed; and, secondly, that, in their efforts to achieve their respective goals, all the diverse and special types of education have adopted parts of an activity program as one of the means of reaching their respective special ends. The critic of education, however, sees that special forms of education have their good and their weak points, and that, therefore, the partial endorsement of special forms of education is likely to do the activity school more harm than good. The specialists in education disturb the balance; they tend to overemphasize that aspect of education in which they are most interested, with the result that there is an inevitable reaction against their ideas, in which activity pedagogy, if they have advocated it as a means of bringing about the kind of education that they favor, is apt to suffer. It, therefore, behooves the activity school to declare its independence even from its friends, to define itself, to govern its own house and bake its own bread. This is the task which remains before us. In this chapter we propose to examine the activity school *per se*—what, in essence, it is, and where it is going. In Parts Two and Three we will

take up the question of how (the method) it is proposed to get there (the goal) and under what conditions (the application).

A. THE AIM OF THE ACTIVITY SCHOOL

The aim of a general system of education must be broad enough to include varied, and, in many cases, contradictory elements. Education must aim at fulfilling the child's *needs*; on the other hand, it must proceed according to the child's *interests*. The child has the sacred right of childhood to live in the *present*; contrariwise, education must also prepare him for the *future*. The child is an *individual* and unique soul; conversely, the child is also a member of a *social* group. To the naturalist the child is part of *nature*; to the humanist the child is inheritor and producer of human *culture* and civilization. The aim of education should be to make people *happy*, according to eudaemonism; not so, says idealism, for the aim of education should be to make people *virtuous*. Rationalism bids us stress human *reason*; pietism emphasizes the value of *faith*. Each of these contrasts has its own logical and historic sanction, but general education must find a way to unify them. We must have a capital, transcendental aim which can subordinate and include all other legitimate aims—an aim which is constant, not variable as these sub-aims are when times and circumstances change.

Aim or purpose includes the idea of end product, and the only aim which can include all these legitimate subordinate aims, the only aim which will be ready to include new legitimate educational aims as they may arise in the future, is the aim of human perfection. We can approach human perfection only as the mathematician approaches a limit, always progressing but never arriving. Our path is a series of stages from the good or valuable to the more and more preferable according to the Aristotelian principle of the summation of good which holds that increasing preferableness is marked not only by increasing degree of preferabil-

ity but also by increasing kinds of preferability. We have noted that the ideal—i.e., the most preferable, the perfect—of physical life is health; and that mental life has three kinds of ideals corresponding to the three departments of the human mind, whereby we find beauty as ideal of ideation, truth as ideal of judgment and reason, and virtue as ideal of will or emotion. The ideal man, the perfect human being, is a concept which embodies these and all other ideals, and should motivate and regulate all our doings and strivings in education. We can never reach our goal, but that may not deter the educator from the effort. The pupil cannot reach perfection, but he must strive through effort and self-activity in this direction. In its aspiration toward the ideal, our human nature manifests itself at its best.

The aim of the activity school embraces and includes the Pestalozzian and humanistic ideal of the complete man, adding thereto its recognition of the ideal of the physical man which these precursors have rather overlooked. It recognizes the physical-mental dualism in man, but declares that the members of this dualism are coordinate. The Herbartians placed emphasis upon the third mental function, the will, and therefore stressed character and morality in education; this is admirable so far as it goes, but a preponderance of emphasis on only one member of the mental trinity disturbs the balance. As Brentano¹ points out, a man of ideal love and good will, but without intelligence, is just as useless for humanity as a man of ideal understanding and knowledge but without love. The ideal man stands over the moral man; the concept of the ideal man includes the concept of the moral man. “Be ye therefore perfect, even as your Father, which is in heaven, is perfect,” are the words in which Jesus stated the eternal aim of education.²

Kerschensteiner attacks the ideal of the “whole man” as an abstraction, even though he himself was forced into

an abstraction when he set up the ideal citizen as the aim of his educational system. But its abstract nature is of the very essence of aim, for only an abstract ideal can serve the purposes of all people and all times, can be eternal and a constant. Our concepts of the ideals of health, beauty, truth and virtue are, of necessity, imperfect; but unless we keep our faces turned toward this goal of perfectibility in all things, we lose our orientation in the whole educational process.

The development of the ideal man as an educational aim is not synonymous with "all-round development." The latter term really serves to beg the educational question, for all-round development has a material and a formal aspect. From the material side, all-round development means the piling up of knowledges, skills, attitudes, etc. which either are common to all men, or are common to all fields of human endeavor. These do not coincide, for the number of such knowledges, etc. is constantly increasing as our cultural level continues to rise. On the other hand, from its formal side, all-round development would imply the harmonious development of all the functions which are embodied in man's psycho-physical organism. But this formal aspect of all-round development contradicts the former material aspect, because a minimum of material can be used to develop a maximal number of functions in different directions.

Pedagogical activity has been found useful for prosecuting many of the sub-aims of education, but the activity school does not rest its case there. The pupil should engage in pedagogical activity not merely because it conduces to bodily health, not merely because it furthers the individualistic, the naturalistic or the social aims of education. His activity is justified on the higher ground that, through it, he advances in the direction of the ideal man. The hygienic, the didactic, the hodegetic aims in education are all good; but each is one-sided. Taken together, sub-

ordinated properly to the great ideal, they all serve to further the purpose of general education—the training for ideal manhood.

B. THE PLACE OF PEDAGOGICAL ACTIVITY

Before proceeding with our examination of the nature of the activity school, it is necessary to determine whether the place for pedagogical activity should be the home or the school. Luther, for instance, placed it in the home and advocated only two or three hours attendance at school for theoretical instruction. But since pedagogical activity has been shown to possess cultural as well as economic values, we should be justified in excluding it from the school only if it could be demonstrated that provision for it has been made elsewhere. This is the case with farm life, and, to a lesser extent, with life in a small town. It is, therefore, a mistake to decry every example of children working at home as exploitation of childhood, for such work may be highly pedagogical. For instance, the work on a farm is, under certain conditions, pedagogical activity in a true community of work, and the farmer has, as a result of this type of training and living, always been the mainstay of the state. But in general, because of changed social conditions, it is no longer safe to rely upon the family as the educational institution that it was in the past. Even with respect to the farm, there are teaching values which farm life does not supply, and we must conclude that the proper place for pedagogical activity is in the school.

C. WHAT IS ACTIVITY PEDAGOGY?

Bearing in mind the purpose of this chapter—which is to define and describe an activity school—we come now to the most important element of such definition, namely the description of the system of pedagogy which is used in the type of school which we are attempting to delineate. We have stated the aim of the activity school; we have

also, without closely defining our term, activity pedagogy, concluded that the place of such activity pedagogy is, under modern conditions, the school. But the crux of the entire matter is to define the term "activity pedagogy" which we heretofore have been using rather freely as though everybody has the same concept of the term.

Activity pedagogy is really two things: namely "*activity*," or things to do, and "*pedagogy*," a *method*, or a way of doing those things. The former of these, *activity*, subdivides into two kinds: manual training (broadly considered so as to include the hundred different types which we have seen advocated at different times by different educators), and non-manual training activities which, as we shall see presently, are found in all subjects, even the "purely academic" subjects. The former of these two subdivisions, manual training, again subdivides into two forms: manual training, a separate subject coordinate with the theoretic or academic subjects; and manual training, a helping subject subordinate to other subjects and taught in conjunction with, say, mathematics, as in the French schools.

Returning to our original division of activity pedagogy, the second factor is, as we have seen, *pedagogy*, a method or a way of doing the activities just described. The method of the activity school is heuristics; its detailed description is reserved for the second part of this book.

At this point a summary-outline may be of help:

Activity Pedagogy consists of

1. *Activities* (pedagogical activities) which are of two kinds.
 - A. *Manual training* which also is of two kinds,
 - a. *Coordinate* with academic subjects
 - b. *Subordinate* to academic subjects
 - B. *Non-manual training activities* in all subjects
2. *Pedagogy* — a method, called heuristics.

*i. Activities in the Activity School**a. Manual training*

When activity pedagogy takes the form of a subject, "manual training," its most striking difference from activity pedagogy as a method, lies in the fact that it is taught in specially designed workshops. But this implies no severance of the close connection between the work of these classes and that of other classes of the school. Indeed it has been the experience of educators that manual training correlates more easily with other subjects than the traditional subjects do among themselves. On the other hand, it should be remembered that, while manual training should cultivate neighborly relations with the other subjects, the directing influence in manual training should be the inculcation of various skills. Only on this basis can the special advantages—health, esthetic tastes, training of will, socialization—of manual training be achieved.

i. Forms of manual training

The list of forms which manual training may take is long and constantly growing. Following are some suggestions which have been made, but, while no school would make use of all of these forms, each school could select those which it can do profitably in view of the special conditions of community, equipment, teacher abilities, etc. All have been found to work well by different educators: cardboard-work, leather, bookbinding, printing, lacquer-work, painting, pottery, etching, modelling, glass-work, wood-work, metal-work, brush-making, weaving, straw-work, basketry, inlay-work, mosaic, lath-work, whittling, engraving, casting, machine-making. To this list must be added the special forms of manual training specially suited for girls, such as: homemaking, cooking, sewing, millinery, etc. The favorite forms of manual training with most educators are wood-work, which has seven different sub-forms, and metal-work, which divides into five different

types. If both forms of manual training are taught, they should be taught separately—first wood-work, then the more difficult metal-work. If we teach both courses at once, we get polytechnic, and the likely result will be a lack of thoroughness in each.

Of the many forms of feminine manual training, needle-work and cooking have been the favorites of most educators. These have all the advantages for girls which the wood- and metal-work have for boys. As in the case of the boys, it is better to concentrate on one type at a time, rather than to teach both together.

In country districts and even, to a lesser extent, in cities, nature offers opportunity for manual training instruction in such branches as gardening, farming, flower-culture, orcharding, stock-raising, etc. The naturalists in education beginning with Rousseau and extending down to contemporary educators have stressed these forms of manual training. They are superior to others from the hygienic standpoint; gardening in open air is obviously more conducive to health than work in a shop. From the didactic point of view, the workshop gives training in a greater variety of tools; on the other hand, the best way to learn about nature—factually and appreciatively—is in the close intimacy with nature which nature as manual training fosters. From the social point of view, moreover, the farm-yard or garden is the locale for a very natural and highly useful community of work; hence the social and hodegetic advantages of nature as a form of manual training are many and powerful in influence. All things considered, nature as a form of manual training ranks very high, and more use should be made of this subject. However, local conditions will, in the long run, determine the best forms of manual training for each school.

ii. Organization of manual training classes

The organization of the manual training class should be the community of work. This form of organization is

naturally and almost unconsciously adopted in activity classes, while in the academic classes the community-of-interest type of social organization progresses but slowly. The ease with which manual training falls into a natural social organization is one of its distinct advantages.

iii. The place of manual training in the curriculum

American practice seems to be more satisfactory in regard to this question than European. In spite of a long line of educators, beginning with Comenius, who advocated manual training as a secondary school subject, there seems to be some evidence that contemporary European educators tend to assume that manual training is solely an elementary school subject. In contrast to this position, American education has found a place for some form of manual training at all levels; indeed this tendency has culminated in the establishment of special manual training high schools.

But there is another angle to the question of the right of manual training in the curriculum on all levels. Generally speaking American high schools are larger than their European counterparts and are more apt to be unspecialized. The smaller foreign secondary school has for decades been specialized into *Gymnasien* (academic high schools), *Realgymnasien* (semi-scientific high schools) and *Realschulen* (scientific high schools). In Europe generally this pattern is followed, and the practice with regard to manual training in these different types of high schools has been to have no manual training in the academic high schools, to have some but not much in the semi-scientific secondary schools, and to have quite a bit in the purely scientific high schools. However, present American secondary education is moving rapidly in the direction of the specialized high school. The program has advanced beyond Europe in our centers of population; it necessarily cannot make the same progress in our more sparsely settled communities simply because greater distances and relatively

smaller numbers of population per unit of area make specialization of high schools extremely difficult from the economic and administrative standpoint.

Our American practice, in other words, has been sound in the past and is steadily improving. It is to be hoped that now, that the term "manual training" has been expanded to include so many types of psychophysical activity, the place of manual training in the curriculum on all levels from kindergarten to university is permanently secure. The present danger is that in our specialized academic high schools there may develop the tendency to drop manual training altogether; this tendency should be resisted because, as we have seen, manual training is not only valuable in the direction of developing techniques, but also in creating great cultural values.

iv. The manual training teacher

Who is to teach the manual training subjects? Should the teacher be primarily an artisan, who has had some pedagogic training, or should he be primarily a pedagogue, who has had some technical manual training? Insofar as activity pedagogy is a method the question answers itself, but a rule of thumb will not suffice when activity pedagogy takes the form of manual training. Here conditions must determine the answer. In vocational and continuation schools the special vocational aim takes precedence, hence the artisan is to be preferred, though, we must add, such artisans, with pedagogic training and with the necessary "teaching temperament," are extremely rare. But the need will probably produce the man. On the other hand, in general public and secondary schools, the capital aim is the development of ideal manhood, and there the pedagogue, rather than the artisan, is preferable as teacher.

Practically, the solution has often been found in the creation of the position of "special teacher," who is technically competent in his field of manual training but who is primarily a pedagogue who has specialized in the method-

ology of a manual training subject. However, the danger of this solution lies in the fact that the unity of the whole curriculum might be destroyed. To avoid this disadvantage, a manual training course may be combined with a related academic subject and the special teacher be required to teach both. That was the solution in Vienna, where combinations such as needlework-drawing, woodwork-drawing, cooking-nature, farming-nature, were found to work well. In the final analysis the state will have to decide, which it probably will do differently in different localities.

b. Non-manual training activities

Up to this point we have been considering only manual training as a form of pedagogic activity. It is true we have expanded the meaning of manual training so as to include a great many types of activities; but they have all had in common the fact that they consisted of physical or bodily activities. But such are not the only types of activity to be found in the activity schools. There remain for consideration the large number of non-physical activities which are to be found side by side with the various forms of manual training.

i. Expansion of "activity" to include the academic subjects

In considering the history of the development of the activity school we have seen how many educators advanced beyond the narrow view of regarding only physical activity as true activity, to the point where they included mental activity as well. Pedagogical activity thereby is recognized for what in essence it really is—a means of education for ideal manhood.

There are two immediate difficulties which the past has not solved for us; the first arises from the fact that there has been no agreement as to the applicability of the activity principle to different levels of learning and in different fields of subject matter, the second from the fact that the

nature of activity has not been satisfactorily defined. The first difficulty becomes apparent when we consider how we have applied activity pedagogy in a haphazard, planless, spotty manner. We make use of activity pedagogy as a principle of method in the lowest grades and in the university, but not in between; we tend to limit activity pedagogy as a subject of instruction to the upper grades of the elementary school and to the special schools; we apply activity methodology to science and nature but not to the academic subject.

The answer to this problem has already been stated: namely, that some form of manual training should be given at all levels of the curriculum from kindergarten to university; that, in practice, American education is rapidly approaching this ideal.

The second difficulty which the past has not solved for us is the confusion which exists in the minds of educators when they speak of pedagogical activity.

Some educators restrict the term to physical or bodily activity (movement); a second group³ would include such subjects as drawing and penmanship; for a third group the term is synonymous with expression or objectification and includes speech (as means of expression) and every form of representation; Kerschensteiner includes impression under pedagogical activity whenever impression is a result of purpose; furthest of all go the group who include reading and questioning "because these subjects are active." This second difficulty requires that we define for ourselves exactly what we mean by pedagogical activity.

ii. Pedagogical activity defined

If we analyze the concept "purely physical" pedagogic activity it becomes readily apparent that such "purely physical" activity must involve a purpose and the consideration of the means for achieving it. Hence so-called "purely physical" activity is a misnomer; the mind is always involved and human activity is always a psycho-

physical process. As such it effects changes in the phenomenal world; even the athlete effects changes in his own body through his psychophysical activity. We conclude, therefore, that bodily pedagogical activity is (*a*) psychophysical, (*b*) purposeful, (*c*) characterized by application of physical and mental force to overcome resistance, and (*d*) the efficient cause for changes in the phenomenal world.

But the heart of the matter for pedagogy is not to effect changes in the phenomenal world but to effect advantageous changes in the noumenal world. Such changes are advantageous when they create cultural values—an expression which contains two terms whose meanings must be carefully examined.

Culture consists not only of the accumulated knowledges, skills, attitudes and powers of the mind, for the mere amassing of facts, etc. does not constitute culture. Culture assumes an orderly arrangement of these mental attributes; culture is the result of the accompanying and consequent growth in the plastic power of the unified mind, and is brought about through enrichment of ideation, correctness of judgment, rightful forms of expression, and increase in health and efficiency of the body.

In ordinary use the word "value" is an equivocation whose specific meaning may be either subjective value or objective value. What is good in itself is an objective or absolute value; what is relatively good, or useful, or desirable is a subjective or relative value. But since values cannot differ in kind but only in degree, we are guilty of equivocation in speaking of esthetic, or moral, or ethical, or—as here—cultural values. Nevertheless a cultural value, in spite of the logical error involved in the term, may be regarded as anything which we find worthy of love, esteem, preference, at the same time serving as a contribution toward the realization of the end of education—ideal manhood. Of course, there is no such thing as value except as it is related to man; there is no value,

in either primary or secondary sense, except as there is an evaluator.

Since creation of cultural values is the heart of the matter for pedagogy, it would be foolish to confine our concept of pedagogical activity to the merely physical or psychophysical form. Psychophysical activity is pedagogical activity ; that is conceded. But is the purely mental process not pedagogical activity also ? Note the similarities between them : both are activity ; both are purposive ; both involve application of force which results in fatigue ; both end in the production of cultural values. The purely mental activity effects no change in the phenomenal world, whereas the psychophysical activity, like the purely mental activity, does effect changes in the noumenal world. We conclude, therefore, that the noumenal changes, or cultural values, are significant and of the essence of pedagogical activity, and that phenomenal changes are incidental, not essential. We are therefore ready with our definition of pedagogical activity.

Pedagogical activity is every purposeful application of human power, mental or physical, through which cultural values are created.

iii. What pedagogical activity is not

Pedagogical activity is not representation

Having enunciated this very broad definition of pedagogical activity, we must defend it against one of the greatest friends of activity education whose enthusiasm betrayed him into error. W. A. Lay insisted in his "School of Doing" that in every unit of learning, impression and assimilation must, as a matter of pedagogical principle, be followed by overt doing, by representation. The spirit of this is good, but the "must" is objectionable. In most cases, expression should follow impression ; in very many cases expression takes the form of representation. But a particularly important kind of psychic process is characterized

by suppression of the third step, and virtual suppression of the first. This is purposive thinking, or, more simply, thinking. James, a follower of Lay, avoids the difficulty by saying that the third step is, not representation, but expression, and adding that expression may be almost anything—a blush, an increased heartbeat, or the suppression of outward forms of reaction. Lay's error is that he confines expression to motor expression; he is partly right in that every objectification or representation is expression, but not every expression is representation or objectification.

Pedagogical activity is not "creative activity"

The reader is warned against the zeal which would confuse pedagogical activity, when it takes the form of producing something, with "creative activity." The point of departure in this type of activity is the model, and the result is not "creative" but reproductive. Indeed the more closely the model is followed, the more clearly is the object reproduced. But this does not mean that reproductive work implies a diminution of activity. True creative work is the highest type of self-activity and can be reached only by passing through the lower stages of activity. Some pupils, the gifted, reach this stage more rapidly than others; most pupils never reach it. We cannot require the average to do what is possible only for the gifted, nor should the activity school claim to accomplish what is clearly impossible, and thereby give its opponents the opportunity of attacking it for making false claims.

Pedagogical activity does not mean "free" mental activity

The reader is similarly warned against those well-meaning friends of the activity school who characterize it as a school of "free" mental activity—meaning by "free" completely independent of any restraint exercised by the teacher. It is granted that the impulse for activity should come from the pupil, that he should use his own strength

along self-chosen paths of activity for the accomplishment of a self-chosen goal; but let us not forget to add the saving words "as much as possible." A wholly free mental activity can exist only on the highest plane of self-activity, the plane of enlightened self-determination. But this is the end point or goal of the activity school, not the school itself. The child needs guidance and leadership because of the facts of its own nature. Whoever forgets this contravenes all pedagogical experience, and is likely to find the "center" of his school neither the child, nor the teacher, nor the curriculum, but chaos. The function of the teacher, as helper, varies under circumstances. To be able to judge to a nicety the exact amount of leadership, guidance, direction or help that is necessary in a given teaching situation, is just what teaching skill consists of. The activity school does not require a "Copernican reversal of our entire point of view." It is the culmination of a logical train of closely reasoned pedagogical syllogisms which can be put into effect with full realization of the need for considering all environmental and practical factors.

c. The underlying principle of all pedagogical activity

This is the principle of self-activity. Through self-activity, the child achieves experiences; through experience, understanding; through understanding, his experiences are made available for further progress through life. Self-activity combines knowing and doing, power to act and will to act. It is the means of self-development and leads to the most powerful kind of experiential learning.

Through the application of this principle, we are no longer concerned with reform of part of our school system, but we effect a reform in all kinds of schools at all levels. In the kindergarten, the application of the activity principle is best exemplified at present; then come the university and seminar courses. If the two poles of our educational system are won for self-activity, the middle portion must follow soon.

i. No necessary conflict between activity school and traditional school

Some educators have insisted on the sharp cleavage existing between the "learning" school and the new "doing" school. Actually such cleavage need not exist. The activity school does not propose to get along without the book, nor to convert all classrooms into laboratories and shops. The activity school has need of mental workshops as well—of libraries, history rooms, nature rooms. It will include knowing as well as doing in its curriculum, but suggests that, through the application of the principle of self-activity, all learning will be improved. In the activity school the doing child should learn, the learning child should do. There is no essential conflict between the two schools; Pestalozzi, who contributed so much to activity pedagogy, would be very much at home in an activity school.

But while there is no conflict between activity schools and learning schools in theory, the traditional schools have in many cases departed so far from their Pestalozzian model that considerable difference and contrast in practice often exist. The traditional school shouldn't in theory, but often does, emphasize teacher activity. Diesterweg, more than seventy years ago, contrasted the old and the new in almost the same words that Dewey uses in *School and Society*. "Training *vs.* development; restriction (pruning) *vs.* free growth; mechanization *vs.* organization; rote learning *vs.* sense impression lessons; word knowledge *vs.* insight; fact *vs.* power; mechanical skills *vs.* free abilities and the wish to use them; generalization *vs.* individualization; conformity to the pattern *vs.* self-determination."

The activity school is not merely characterized by the presence of a few manual training courses, but is a development of the learning school in that it uses instruction in the fields and open spaces; utilizes excursions, opportunistic learnings; welcomes the initiative, the questions, the dis-

cussions, the self-government of the pupils. Everything is utilized in an activity school which arises spontaneously out of the nature of the pupil or of the work in hand, for such things make the teacher-pupil relationship a cooperative relationship in communal work.

The principle of self-activity, then, is the formal principle upon which the activity school rests. "Through self-activity to independence." That is the watchword of the activity school.

2. Activity Pedagogy as Method

We have defined activity pedagogy as consisting of two things: of activities, which we have just been considering in some detail; and of a method of teaching all subjects of the curriculum. The activity method is applied when any form of activity is undertaken by the children to further the ends of instruction in any subject. It may not lengthen the time necessary to accomplish the ends of the lesson, otherwise it would be a poor method. The children's activities under this form of methodology must be speedy and consist of the application of very simple techniques. Appropriate activities are such as modelling, pasting, paper cutting, and simple construction of all kinds which would require only simple tools such as a knife, a pair of scissors, perhaps a pair of pliers, or needle and thread. The place of activity methodology is the classroom; the means, group instruction. All the children make the same object, for the process is more important than the product. The product generally will be simple school apparatus. As a method of instruction, activity methodology may not increase school costs nor lengthen school hours.

From this discussion of the nature of activity methodology we see how closely it is related to Froebelian activities. In Froebel children's activities first appear in the form of play, but little by little play merges into work. It has been observed that activity method reaches down into the

kindergarten ; conversely, play should not be abruptly cut off at kindergarten but should penetrate instruction in the grades. This doesn't mean that school is a kindergarten ; nor that a kindergarten is a school of little children. The development of the individual is made possible only through using subject matter which is, in its mental content, either wholly or in part adequate to the individual at his present stage of development.

The kindergarten is thus shown to be the pattern which it would be well for general education to follow more closely as regards method, for activity pedagogy as method is the adaptation to higher levels of instruction of the method which has been found so successful in the kindergarten. Through the continuation of kindergarten methodology into the grades, a bridge between the two is constructed, and articulation is improved.

As we pass from the elementary to the secondary schools, activity methodology loses "width"—that is, it is applied to fewer subjects as these become more abstract—but gains in "depth" in the science subjects, as these are taught more and more through the experimental or activity method. This self-seeking-and-finding method is really the method of the kindergarten ; it is a type of activity method which may be profitably employed right through the university.

a. Analysis of activity method

We may approach the analysis of activity method by recalling the three steps which are normally found in the learning process. These steps are commonly known as impression, assimilation, and expression ; and they correspond to the three types of mental phenomena—ideation, judgment or reasoning, interest or will. Educational writers have different terminologies to describe these three steps. Thus, ideation is sometimes "comprehensive activity," "empirical activity," or "experiential activity"; assimilation is variously "associative activity," "assimilative activity," "logical activity," "thinking activity"; while the third step,

expression, is sometimes called "representational activity," "technical activity" or "objectification."

Self-activity usually manifests itself in the learning process as a seeking-and-finding, hence the method of activity teaching must be *stimulative of the seeking-and-finding powers of the child*. In other words, it must be *heuristic — aiding or guiding in discovery, inciting to observation or invention*. Heuristics is the antithesis and complement of technical instruction ; it stimulates the pupil to self-discovery, self-invention and self-effort, instead of telling him facts which the teacher thinks he ought to know. Corresponding to the three forms of mental phenomena, heuristics may be empirical, logical or technical. Empirical heuristics is the method of stimulating the pupil toward percept and concept, toward ideation ; logical heuristics stimulates him to think and reason for himself, and to form independent judgments ; technical heuristics stimulates him toward self-expression. But in every case the pupil is stimulated in the direction of self-help, which implies that the didactic processes of the teacher are of far less importance than the learning processes of the pupil.

For logical reasons we have given this analysis of activity methodology — heuristics — in this place. But a complete description of the method in operation will require an entire section of this study.

D. SUMMARY

The purpose of this chapter has been to define the activity school. This we have been enabled to do, stating its aim, determining the proper place for activity pedagogy, and analyzing what is meant by the term activity pedagogy.

As to the aim : We propose the perfectibilian goal of the ideal man, for only in an unattainable ideal can we find a goal that will remain constant through changes in society, and will be broad enough and high enough to incorporate all other legitimate sub-aims of education into a simple supreme aim.

As to the place of pedagogical activity : We have concluded that the scene of activity pedagogy must be the school, since the home, the only other possible locale for such activity, cannot, in a modern industrial society, function as the chief institution for education.

As to the meaning of activity pedagogy : We have found that activity pedagogy consists on the one hand of activities carried on by the children either in workshop or classroom ; that pedagogical activity may be psychophysical or merely mental ; that cultural values are the outcomes of such activity. On the other hand we have found that activity pedagogy consists also of a method — heuristics — which is applicable to the teaching of all subjects in the curriculum. In other words, the expression, "activity pedagogy," has a material and a formal aspect. On the material side, activities may be either manual training or non-manual training ; on the formal side, heuristics may be empirical, logical or technical depending upon which category of the mind — ideation, judgment, interest — is involved at the time.

PART TWO

*HEURISTICS, THE METHOD OF
THE ACTIVITY SCHOOL*

CHAPTER VI

EMPIRICAL HEURISTICS

In our description of the activity school thus far we have proposed an aim, established the dual nature—material and formal—of activity pedagogy, and laid down the basic principle of pupil self-activity upon which the school functions. In the preceding chapter we considered activity pedagogy from its material side; we saw that activity may be either psychophysical or purely mental. There remains the description of the formal, or methodological, factor still to be undertaken in this section in order to complete our picture. Put in another way, we still have to see what happens when the underlying principle of pupil self-activity is formally and systematically applied in the activity school.

A. PRELIMINARY CONSIDERATIONS

1. *Difficulty of Illustrating Method*

In view of our broad definition of pedagogical activity we can readily understand that pupil self-activity is a highly complex phenomenon. It doesn't exist in one simple form which can be easily studied wherever it appears, but, on the contrary, it changes from subject to subject, from level to level, and it manifests itself sometimes as a predominantly mental, at other times as a predominantly physical phenomenon. If we attempt to study self-activity in the entire field of education, we run the danger either of being too vague and general or of losing ourselves in a mass of detail. If, on the other hand, we choose a single subject as typical, we may be accused of one-sidedness or lack of completeness, especially if the subject we choose as illustrative is definitely either a knowledge or a skill. Fully aware of the dilemma that confronts us, we nevertheless believe that in geography we have a subject, which, while remain-

ing a unit field of education, is nevertheless so broad and many-sided, that it serves admirably for the purpose of illustrating the method of the activity school in applying the principle of self-activity to the learning process.

What data have we to justify our choice of geography for the purpose of illustrating activity method? There are several: Geography is at once a science and a formal discipline; it combines knowledges and skill; it is natural science and social science; it is related to, and lies contiguous to, the fields of many other sciences, such as mathematics, physics, biology, drawing, statistics, anthropology, geology, geodetics, economics, ethnography, sociology, and others; it is a universally popular subject in all schools, and is found at all levels of instruction; it has contiguous sciences found in the curriculum with which it must correlate; on the other hand, some of its contiguous sciences, like anthropology, are not in the ordinary curriculum, so that in this regard geography often has the duty to transcend its theoretical limits lest teaching become mere verbal learning; it combines with other subjects most easily, being the most associative subject of the curriculum, according to Herbart. Geography, in short, is so many-sided, so universal, that it offers ample opportunity to illustrate activity methods in their entirety.

2. The Psychological Basis for Empirical Heuristics

We have defined empirical heuristics as that type of activity method which stimulates the pupil in the mental process which we have called ideation. When the psychologist uses this term, he thinks of the processes of concept forming as purely intellectual—as opposed to volitional. But for the educator, it is important to note that there is a volitional element; the percept is “taken up” into the consciousness through the process which Leibnitz first called “ad perception” (apperception), or the bringing to bear upon the new percept a wealth of previously stored

percepts so that the new percept may be interpreted in light of the old, and a concept formed. Now the significant factors here are that such "taking up" involves activity heightening, that it requires the interposition of consciousness to change the percept through apperception into a concept, and that with consciousness both the judgment and the will are brought in—the former, because judgment is required to choose the proper old percepts for the apperceptive mass; the latter, because attention—a function of interest-will—must be directed to the problem of comparing the new with the old and interpreting the new in the light of the old.

Empirical heuristics seeks to stimulate this process by making use of pupil self-activity. It does this by planning to regulate the pupil's sense impressions so that he does not remain merely passive, or receptive, but becomes active. By an act of his own, either voluntary as will or involuntary as interest, his perception becomes purposive and an act of observation. This latter may be either static or dynamic depending upon whether or not movement or change in the object perceived is involved.

Static observation, like dynamic, involves attention which is focused on a series of percepts with the purpose of uniting them into a concept. Thus when we look at a scene, at several times and in different directions, this series of percepts does not become a concept until the separate percepts have been combined into a unified whole. The process is synthetic and implies association and comparison. Dynamic observation differs from static in that it involves a consciousness of change. This can come only from a series of static observations so spaced in time that the change has been neither so small that it cannot be noted, nor so great that the sense of unity is destroyed. Dynamic observation is of greater utility to the educator because it involves greater activity on the part of the observer (pupil).

The dominant characteristic of both types of observation

is its purposiveness. By means of purpose, we give direction to static observation, we pick out significant details and subordinate the unessential. Psychologically, the purpose itself is a concept which, through attention, is directed toward the object perceived. Thus, if the purpose is to trace the course of a river on a relief map, this purpose is held in mind during the entire observational process, and results in the concept of the course of the particular river we are interested in. For educators, therefore, observation is a seeking-finding process; it must be planned and prepared for; it must result in an incorporated concept. Finally, it must be personal to the pupil; he must experience it himself and not merely accept the account of someone's else observation.

3. Subject Matter as a Function of Method

If we are going to use geography as the curricular subject through which we propose to illustrate the heuristic method in operation in an activity school, we imply and assume that we create a course of study in geography suitable for the application of the method. For method doesn't exist in a vacuum; method always means the way of doing something. We see, therefore, that method, broadly conceived, includes determination of proper fields of subject matter. In other words, what we usually speak of as curriculum, course of study, the arrangement of fields of learning in accordance with the natural development of the pupil's powers, abilities, interests and instincts—these matters are functions of method. The aim has set us our goal, psychology has told us something about the laws of learning according to which the child functions; the method, therefore, becomes the way which we must travel in order to reach our goal. Viewed in this way, it becomes clear that choice of curriculum and the arrangements of the parts of a field of knowledge are methodological problems which have to be disposed of first, before the method itself can be brought to bear upon the problem at hand,

which is to advance toward the goal we have set for ourselves.

a. Home geography as the form of beginning geography

Applying this idea to the huge field of geography we note that practically all educators are in agreement that home geography should come first in the pupil's study of the subject of geography. The home is vividly part of both the emotional and intellectual experience of the child, and his concepts of the home are of supreme pedagogical importance because he is constantly referring to them through the process of apperception. These concepts furnish the basis, therefore, for the first judgments which he formulates in his eternal quest for the what, how, why, and wherefore of things. By utilizing the child's experiences in home geography, the other geographical branches are given a platform on which to build proper concepts in fields wherein personal observation is impossible.

Home geography, experientially taught, conforms to that principle of method which declares that the materials of instruction must come out of the child's natural environment, and must vary from place to place according to the way in which environmental factors vary. So an educational development which utilizes home material is a natural method—one which is based upon the natural aptitudes, interests and capacity of the child; it is a natural method also because its subject is nature in the only way in which the child knows nature, which is, in the way nature is found in and about the home.

But what is home, and what is home geography? Home is a special concept, of course, but it is not the same for all children. For some it is a single room, for others a whole house; in either case, it is the center from which emotional associations radiate through the range of the child's free activities. Pedagogically, we must realize that the concept of home is a highly subjective thing, and that when we pedagogues define the home as totality of environ-

ment (natural and human) we must not forget the saving clause "in so far as these factors are related to the child's life."

What this involves, we begin to realize when we remember that, because of modern industrialism, the "home" has largely ceased to be what our romantic writers conjure up when they use the term. The child's environment has left the paternal house and garden, and has included the city streets, with the result that the stock of concepts which the child brings with him to school has changed. The change has not been for the better; the result is that educators, in planning the course in home geography, can no longer rely upon a stock of "free concepts" but must arrange to give these concepts to the child. This can only be done through real sense-instruction, not by a false verbal method based upon substitute material and masquerading as object lessons, but only through realistic and naturalistic sense impressions. At this level, therefore, home geography and instruction of the senses are synonymous.

b. Study of home, as undifferentiated combination subject

The study of the home environment through the senses should be presented to the child as a unity. It is a natural complex of land, nature, history, social and human factors which includes the fundamental three-R skills. The corpus of instruction should not be dissected into a program of studies in which each separate study has a definite time and place; on the contrary, natural associations should be reflected in the method of instruction. The change from one aspect of activity to another should not be through the artificialities of a rigid program, but should come about naturally according to the psychological laws of associative learning. Furthermore, generalized instruction in this undifferentiated subject should continue throughout the primary grades, and such subjects as nature study, geography and history might well remain together as a combination

subject into the intermediate grades. Without completely accepting the radical recommendations of the *Leipziger Lehrer Verein*, who would keep all education undifferentiated until the child has reached his thirteenth year, we nevertheless must agree that the child learns only rather late how to synthesize materials presented separately. It is inadvisable to separate things which naturally go together. To the child, the forms of nature, geography, people, and history constitute a unity, and it is therefore necessary, according to the evolutionary principle, to keep this unity in the instructional setup.

c. *Textbooks not feasible*

Home geography varies not only from town to town but even from school to school. Hence, pedagogical reference books can only have a general application. They can recount how specific teachers met their specific problems, but they cannot and must not be used as though they were plans of what to do. If properly used, such reference books are helpful, because they give hints of possible ways of approaching the specific problem which confronts the teacher. Thus, in a big city, the problem of home geography could be approached through the child's human contacts first, and thence to geographical features of his environment. This is the reverse of the usual procedure in the country districts.

Home geography is not the only type of geography, of course. Geographical teaching must go beyond parochial home geography, important as this is, not only in its own right, but also as furnishing the basic concepts whereby the wider fields of geography may be studied. There will come a time, at the end of the third year, when home geography gives way to the geography of larger units, but the habit of research in all directions to build association bonds for geographical learning should be continued. Observation, seeking-and-finding, learning through the senses

—these are the means of learning in upper grades as well as in the lower. In this way geography continues as pupil activity throughout the grades.

B. EMPIRICAL HEURISTICS EXEMPLIFIED IN GEOGRAPHY

Empirical heuristics is in accordance with the Pestalozzian tradition of placing emphasis upon sense instruction. Through such instruction the child is to become acquainted with convenient natural objects found in home and environment, with social relations and occupations, with the connection between man and nature. The starting point of instruction theoretically should be the child's own room at home, but, partly because of conditions alluded to above, and partly because it is an advantage to have a common point of origin for all the children of the class, this starting point is soon shifted to the child's schoolroom. From the schoolroom as a center, the surrounding locale will be discovered—the way home, the school yard or garden, the building itself, etc. The method hereby developed is one which will be used all through the subject of home geography—that is, the method of personal observation and discovery. In this way through his own activity, the pupil in time becomes acquainted with all important parts of his home community.

i. The Collection

A very useful activity for children in home geography is the making of a collection of materials related to the environment. Such a collection has a twofold value: it is a means of pupil activity, and, secondly, it is a means of increasing teaching efficiency. The teacher of home geography must be sufficiently equipped with actual physical materials, so that pupils will have concrete things from which to gain sense impressions. The collection should not only be a "specimen" collection but should be a record of all available home geographic and cultural resources. Remembering that home geography is the undifferentiated

subject of the first three years, we will immediately see how vast and many-sided a geography collection can become, for it includes all sorts of human and natural material. The teacher should make a systematic plan in outline form whereby the collection of home geographical material can be classified, dividing the material into the two great categories of natural phenomena and human phenomena. Such a plan should be sufficiently flexible so that revision and rearrangement can take place according to the experiences which teachers and pupils gain through building up the collection.

2. *The Excursion*

But the most important method in home geography teaching remains the excursion. Through the excursion the facts of geography are learned experientially through self-activity and observation. It should not be confined to the primary grades, but should be undertaken at every level of geography instruction; of course, as the pupil's geographical horizon enlarges, the excursion changes as to length, purpose and results obtained. The length of time that the excursion takes will depend upon the nature of the project, which, in turn, will be determined by the extent of the pupil's knowledge. Excursions may be short walks, day-long hikes, or even longer trips. On the trip, the pupil should definitely be brought into contact with the outside world.

While it has been shown that pupil activity is involved in viewing a landscape from a height, it is also true that going to the height increases the activity and enriches the concept. The actual excursion ties with it concepts of distance and time based upon actual experience and bound up with a remembered sense of motor activity. When the pupil views a scene from a height he gets an impression of placement in a two-dimensional plane—the scene, as it were, is a picture; but when he actually moves through the scene, it becomes keenly three-dimensional to him.

a. Preparation for the excursion

The preparation for the excursion includes consideration of the equipment needed, both personal equipment and that required by the class as a whole. A necessary division of labor should be agreed upon according to pupils' free discussion and voluntary assumption of duties. Finally the preparations include a discussion of the project undertaken. Pupils themselves pose and answer questions such as why, how, how long will it take, etc. In this way they will state their own problem, determine the steps necessary for solution, and call up the related knowledge which they will need if they are to arrive at their goal or solution.

b. Conduct of the excursion

During the excursion emphasis should be placed on personal observation ; it is therefore better to restrict the range of the excursion than, with greater distance covered, to miss opportunities for pupil activities on the way. When the class assembles, e.g., at heights of land, the teacher should remain in the background, and pupil activity should be encouraged. A landscape may be observed in one of several ways: (*a*) find salient features, observe them, and fill in spaces between ; (*b*) start at the horizon and work through landscape in concentric circles ; (*c*) divide the horizon into sections and piecemeal take up each section in turn.

Geographical excursions also furnish abundant opportunity for "exercises" and "practice." Some of these are : direction by sun, checked by compass ; the watch as compass ; measurement by means of tape ; measurement by paces, by time it takes to walk ; judging distances and heights, with verification ; examples of geographical terms illustrated. In upper grades there should be constant comparison between nature and map ; sketching and map drawing are useful in grades V to VIII. In secondary grades pupils should achieve mastery in all kinds of map reading,

and map making in simple forms may be attempted, though accurate topical work must be reserved for the university.

c. Discussion after the excursion

After the excursion there should be a discussion of what has been achieved in order to fix the new concepts firmly. In what way did we accomplish our aim? How did we fail? Did we omit anything? Must we make another excursion, or shall we send a committee? What new problems do our results now pose for us? In such discussion there will be many occasions for opportunistic teaching. But freedom entails responsibility, and there must be no wandering away from the field of discussion into pointless digressions.

3. Observations

Another form of empirical heuristics is the observation of phenomena by the pupils. Observation, we have seen, may be either static or dynamic; the former has been amply made use of on the geographical excursion which we have just discussed. But dynamic observation is also possible in geography teaching, especially in the mathematical or astronomical part of the field, which is taken up in the intermediate grades. Here the pupil can make a series of static observations which, in their entirety, lead to dynamic observation, or observations of changes in state.

Mathematical and astronomical geography is taken up generally on two levels—in the IV and in the VIII grade. Ordinarily the teaching is almost completely verbal; the children are lectured to by the teacher, they study some charts containing lines actually meaningless to them, and they memorize the “facts” they have learned so that they can orally or by means of writing reproduce the charts. Yet there is probably no place in geography teaching to which the principles of activity pedagogy could be more advantageously applied; this, in spite of the difficulties such teaching would involve.

The crux of the matter is that mathematical and astronomical geography should be taught, not in the classroom, but in the school garden or yard; not in the daytime exclusively, but also, so far as the astronomic part is concerned, at night when the moon and stars can be directly observed. The locale of instruction in these subjects is, therefore, our greatest, but not insuperable, difficulty. Instead of telling fourth grade pupils some of the salient facts of the Copernican system—facts which they don't understand but merely repeat parrot-fashion—let the pupils come to us like naïve savages familiar with the world of appearance that they may later have insight and understanding of the world of reality. To the child the sun goes round the earth, not vice versa; what he sees with his own eyes is true for him. If his imagination and curiosity is stimulated in the right way, he will then be ready to study the heavenly bodies and their movements more carefully.

For this he needs instruments which should be of the simplest and self-constructed. In the manual training class he can make, with the help of his fellows, a compass, a sundial, a simple theodolite with plain glass instead of lenses. The teacher, or a pupil, might contribute a pair of field or opera glasses, though these are not essential; the school supplies a slated globe for the synthetic part of the instruction later on. With these simple, self-made instruments the pupil will then make farther observations of the world of appearances to the end that he may later become independent in the world of reality.

During the daytime observations are made of the sun—its rising and setting, appearance, effects on day and night. During the dark hours observations of the moon and stars; number, constellations, brightness, and zodiac of the stars; appearance, phases, movements of the moon and relative position of moon and sun. Next, return to sun and study the angle of ascension and declination. Lastly return to earth for theoretic and synthetic instruction, based upon

pupil's own dynamic observation, and a unified application of all this material into the Copernican framework. All these steps require time. The reader should understand that several years of instruction in mathematical and astronomical geography have been telescoped into the above brief description of the application of activity methodology to these fields of geographical study. By the time all this has been done the pupil will have advanced from the fourth through the eighth grade; in the secondary school astronomy becomes less geographical and more mathematical. With the quantitative approach the concepts become clearer, but the subject itself passes out of the geographical field.

In contrast to this rather difficult application of the technique of static and dynamic observation to the teaching of geography, we might mention a much easier application of the same methodological technique to the study of meteorological conditions. Such observations are pedagogically most valuable because of the high degree of pupil activity they involve, the great mass of useful information they give the pupil, and the fact that they can be carried on in all the grades including the youngest, of course with appropriate degrees of thoroughness and accuracy. Meteorological observations are data gathered for statistical purposes, hence they spread over long periods of time. This will involve the danger, pedagogically, of flagging interest, but this danger can be avoided by rotating duties. It is suggested that the actual terms used by meteorologists be introduced early, partly to tie up more closely with the outside world, partly to make meteorological publications intelligible to pupil as soon as possible.

4. *Experimentation*

Closely related to the method of observation is the experiment. Here the important thing to remember is that the experiment should be pupil conducted, should be truly experiential. To the objection that the teacher's demon-

stration is neater and will come out right, we can answer that, even when the pupil experiment goes wrong, there has been a great pedagogical gain in showing up flaws in the procedure. The pupil conducted experiment gives a livelier sense of the immutability of natural law than teacher demonstrations.

5. *Visual and Other Sense Aids*

It is only in home geography that direct observation is possible, for as soon as we pass into wider fields, not physically present to the child, we need various kinds of material, appealing to the senses, through which the new concepts are to be formed. Such material may be arranged according to the degree of difficulty the child experiences in using it in other words, in the degree of abstraction and interpretation it entails. In order of degree of abstraction, it may be classified thus: models, reliefs, stereopticon pictures, motion pictures, flat pictures. But there is the danger in using any of this material that the child lapses into a state of mere receptivity, instead of being active and mentally engaged in interpreting the present abstraction into concrete reality. When the child looks at a picture we must make sure, in other words, that he doesn't "see" the picture but the reality which the picture portrays. The passive child does the former; the active child the latter. The child can be gradually led to this interpretive activity if he has a fund of geographical concepts, gained through the study of home geography, which is available for apperceptive use when he has presented to his senses the objectification of something that he has not seen in "real life."

a. *The model*

The model is the three-dimensional representation of a single object—e.g., a mountain—in which abstraction and interpretation are reduced to a minimum. The model can, and preferably should, be made by the pupil.

b. The relief

This is simply the model on a large scale, a model of an entire geographical district. The more complex difficulties of abstraction and interpretation can be to some extent offset by using a large enough scale—for instance, 1:7500. The first relief presented to the pupil should be that of a district with which he is familiar through his study of home geography. This the pupil should be enabled to study both as a whole, and also in parts. Such relief maps have the advantage of affording bird's-eye views of territory, such as we never get in life, which are pedagogically valuable as intermediate between the level view (of life) and the perpendicular view (of the map). The pupil should be encouraged to make excursions through the relief, literally if the relief is large enough for him to walk through, or mentally by tracing out the course of an excursion he actually took if the relief map is small. Further pupil activity is secured when the pupil reproduces a part of the relief on the sand table or in plasticine.

c. The stereoscopic picture

The interpretive faculty must concern itself mostly with material and size. This is so because the stereoscopic picture is three-dimensional. But it has the disadvantage of being available for only one child at a time, a disadvantage which has been eliminated by a modification of the stereoscopic picture thrown on the screen and viewed by the whole class simultaneously through two-color spectacles. However, this device has not won popular acceptance and is not available except in very few schools.

d. The motion picture

This has the advantage of presenting, not single instants of reality, but successive states and thus recording motion. It gives a sense of life and of movement, and makes the beholder a part of the life process depicted. It is of great

importance to geography teaching, therefore, but should always be so used that the child is stimulated to active observation instead of mere passive receptivity.

e. *The flat picture*

Because of their ease in handling, cheapness, and universal availability, pictures are a very important aid in geography teaching. The picture, however, requires the greatest amount of interpretive activity on the part of the pupil because it relies on the technique of perspective to give a sense of the third dimension. Children find the interpretation of perspective extremely difficult, and we must do what we can to help them. It may help the child in his study of the picture to look at it with one eye shut, for ocular parallax, in viewing a two-dimensional picture, acts as a deterrent to mental interpretation, the exact opposite of its function in viewing the three-dimensional world. In the analysis of geographical pictures, the teacher must start as leader and suggester, but in the interest of pupil activity, he should withdraw as rapidly as possible from the leading role. Through this type of exercise the child can be brought to the point where he can look at a picture and point out the objects portrayed thereon on a small special sketch map of the same region which he has made himself.

A special type of picture which is now very common in railroad offices and travel bureaus is the map-in-perspective. This may well be used as an intermediate step between the picture and the map. The pupil might begin at the foreground and engage in an imaginary journey into the heart of the prospective map, much as he did in the case of the relief.

6. *The Map*

The most important of all geographical materials for instruction is the map. Indeed the didactic value of any of the devices we have been studying can be expressed in

terms of how well it serves to make the map intelligible to the pupil. Yet even cultured people, accustomed to travel, are often unable really to understand a map, though they may have devoted years to map study in the schools.

a. *What is a map?*

A map is a horizontal projection of a portion of the earth's surface on which many kinds of geographical information are recorded. Pedagogically it is an instrument for giving sense impressions, for "reading the map" results in the formation of concepts in the mind. Reading the map entails an abstracting process, whereby we bring our stock of concepts, formed as a result of viewing natural objects, to bear upon the map, and, through interpretation, gain new concepts from the map. To understand the symbols employed in map making is not the end; the purpose is to interpret these symbols into concepts of reality. Map reading is extremely difficult to teach and has been much neglected; this subject is therefore in as great a need for assistance through the application of the activity principle as any in the curriculum.

b. *Removing preliminary difficulties*

The preliminary difficulties are occasioned by the fact that the map is a projection—a form of mathematical representation of reality which it is difficult for the pupil to understand. The following five steps may help him.

- (i) Restudy a relief with which the pupil is familiar.
- (ii) Compare it with perspective map.
- (iii) Bring out the idea that the perspective map is representative of something seen at great height.
- (iv) Show disadvantage of perspective in that large objects at edges are foreshortened into small size.
- (v) Return to sand table and have pupils reproduce part of relief map. This brings out idea of "bird's-eye view" of infinite height—or projection.

We are now ready to approach the map itself in a systematic way. In doing so we will show how the principle of self-activity may be applied to the problem of "map reading" or getting concepts of reality from the study of maps. The order in which these concepts are developed need not everywhere be the same, but all of them must be taken up at some time or other, if the pupil is to be taught how to read maps.

c. Establishing concepts from maps

i. Length and breadth

The first concept which the pupil must grasp is that of length, but he can form this concept only by experiencing the length of things for himself. He therefore must measure distances—on the blackboard, on the floor and elsewhere. He must estimate and verify until his estimates are reasonably accurate. He must establish the concept of length by appealing to several senses; for instance the concept of one mile can be established by measuring in feet or yards,—by measuring in steps, by measuring in time it takes to go a mile when he is strolling and when he is marching. His approximations and estimates may be applied to almost every measurable thing in his environment—the city block, the length of the school yard, the length of his garden, etc. Discussion of these activities and their results leads to further discussion of the standards of length, how they originated, how appropriate they are. In the meantime the idea of representing this length in smaller units is introduced, and that leads to map making, to the transition from home geography to wider fields. Pupil measurement of length culminates in measuring an irregular length such as the distance between two points on a winding river or creek.

Since breadth is only a relative term, being the lesser of two associated lengths, the formation of this concept follows the pattern of activities outlined above. Breadth is

really the same concept as length with this slight addition, that breadth always involves a relationship to a greater distance. The relationship between length and breadth is pro-paedutic to the formulation of the remaining concepts.

ii. Area

Area has two aspects, size and shape. The concept of area, which requires knowledge of square measure, is formed, like those of length and breadth, by actual measurement, estimation, and verification. The measurement first concerns itself with small areas, such as table tops; from these, the pupil advances to larger areas until he again discovers the need of representing large areas in small space, or in other words, he rediscovers the need for maps. Using the map he gets direct sense impressions of comparative sizes and shapes; e.g., Sicily is a triangle, Italy a boot, one country is so many times larger than another. The accuracy of estimates should arise as the concept of size is more clearly fixed. We may suggest, as verification of size, the counting of squares in a superimposed transparent sheet of cross section paper. This is not only more satisfactory than looking it up in the index, thereby getting only a single impression, whereas counting squares involves considerable activity and a larger period of sustained attention, but this method is also more accurate than one would expect, because the irregularities of shape tend to cancel themselves out, so that where a portion of a square is missing in one part of the figure, it is compensated for by an overlapping portion elsewhere.

Other methods of reinforcing concept of area would be : to correlate area with simple geometry, to construct linear and other graphs, etc. All such exercises strengthen the memory for geographic data.

iii. Altitude

With this concept we pass into the three-dimensional world. After its importance has been sufficiently clarified

by developing relationship between altitude and climate, occupations, flora and fauna, the pupil is led to see that altitude is perpendicular length (distance). In preparation, pupils may draw from nature imaginary lines connecting points of equal altitudes, and then go to the chart to see how profile lines are drawn. The reverse activity is also useful—seeing the profile line in the chart, later verifying related altitudes by looking at them in nature. After distances above sea level are thus fused into the concept of altitude, distances below sea level marked on charts will become easily intelligible to the pupil.

iv. The plastic world

The union of the concepts of length, breadth and altitude gives rise to the concept of the plastic world. This is the point where instruction in typical geographic forms—mountain, valley, stream, plateau, etc.—would come naturally through the interest of the pupil. However, the activities connected with the formation of these concepts are not associated with maps, but rather with direct observation of nature. Of course local conditions will determine what natural geographic forms can be studied directly through pupil observation, and we always have the model and the sand table to fall back upon. Models and constructions in sand have the added advantage of being easily modified to illustrate several related types of geographical formation.

v. Contours

Teaching the meaning of the contour can be made an interesting exercise in pupil activity. The pupil may construct an easy model—say, a well-known mountain, and can then slice this model horizontally; the slices may be colored differently, and the outline of each slice traced on paper. By cutting out the resulting shapes, and superimposing them upon one another a contour map of the model is developed. Thus through his own activity the pupil

not only learns to read a contour map, but actually makes one. The opposite activity of making the model from the contour follows.

vi. Position and direction

The geographical purpose of the concept of position is that it is necessary in remembering where places are; the related concept of direction is used in fixing the path of trade from one place to another. The direction concept is taught by reference to nature by observing the stars and the sun, whereby the cardinal points of the compass are established. As soon as these have been established, the pupil will be able to state the direction from one place to another.

The outcome of such activity is related to the map in that position and direction, as concepts, lead to the ideas of latitude and longitude on the map. The pupil may make little globes of plasticine and trace lines of latitude and longitude upon it. The necessity for transferring locations of places in the globe to flat surfaces—the map—can be made a little easier by using a glass hemisphere and a large piece of flexible linoleum; marks made in the globe will be reproduced by pressure in the linoleum. This type of instruction, of course, would come only in upper grades, and the theoretical discussion of projection not until the secondary school level is reached.

vii. Secondary concepts

Under this heading can be grouped those special symbols which have been universally adopted by the map maker to mark the location of cultural geographical phenomena. The commonest are the symbols for a railroad, a canal, the pickaxe to mark the site of a mine, the crossed sabres indicating a battlefield, etc. Such symbols are easily learned; in fact, most children understand them without instruction. Consequently the meaning of these symbols can safely be left to incidental learning.

d. Retaining ability to read maps

Having established these concepts, having learned to read a map, the pupil is still not finished with his task. Map reading is something that requires constant practice, which should, wherever possible, be in the form of problem solving. With the map before him, the pupil should solve problems such as: Can one see this point from that? How would you go to -----? He should pass from maps of large scale to maps of smaller scale, and see that as the amount of generalization increases specific details have necessarily been omitted. There must be a constant tie-up between map reading and number, if pupil skill is to be maintained. How much, how large, how far, how high—such questions when applied to geographical data are both geography and mathematics.

7. The Place of "Telling" in Geography Teaching

Finally, although the activity method always emphasizes the activity of the pupil, there is an irreducible minimum of instruction which must be given by the teacher. The pupil can do most for himself, but not all. At this point the teacher must intervene, and, if he has both knowledge and enthusiasm for his subject, the result will be a lifelong interest in geography. The pupil is, during such periods of elaboration or explanation, more receptive than he is at any other time in geography study. Yet he is not entirely passive, for his participation through imagination in the explanations of the teacher is a mental activity which easily becomes the motivation for greater self-activity.

C. SUMMARY

The special problem of this chapter has been to describe the method through which the activity school seeks to stimulate pupils toward formation of correct concepts. In doing so we found that we had to choose a single subject in which to illustrate the method, and, for the reasons

given, we selected geography as the most suitable subject available. We then analyzed the psychologic basis for empirical heuristics. Lastly we came to the important conclusion that the selection of subject matter is an integral function of method.

Having disposed of these preliminary matters we found that (in geography teaching according to activity pedagogy) empirical heuristics takes seven characteristic forms, each of which we examined briefly. These techniques, designed to aid the child in seeking and finding for himself correct concepts for later use, are: the collection, the excursion, observation, experimentation, visual and other sense aids, the study of the map, and finally direct telling by the teacher. In all of these techniques the underlying principle of all activity pedagogy—namely, pupil self-activity—is stressed.

CHAPTER VII

LOGICAL HEURISTICS

We have described logical heuristics as that part of the methodology of the activity school which stimulates the pupil in the field of assimilation. But since assimilation is entirely a mental process, a process in which all the activity of the pupil takes place within himself, we must realize anew the wisdom of including purely mental activity as one of the forms of pupil self-activity which the activity school encourages and stimulates. Logical heuristics will be seen to be the very core of activity pedagogy on the formal side. The only part the teacher plays in assimilation is that of the Socratic midwife; the pupil alone can perform the process of mental digestion, as the mother alone can bear her child. The teacher's sole function is didactic. When the child is engaged in either impression or expression, the teacher frequently is part of the social group; in the middle stage of the educational process the teacher can only watch by the bedside for the birth of thought.

A. PSYCHOLOGY OF MENTAL ASSIMILATION

The assimilative process cannot be completely and logically separated from what goes before nor from what comes after—respectively the formation of the concept and the activity of the interest-will, usually in the form of an objectification. The assimilative process is a link between the activity which makes the outer world have meaning for the inner, and the resultant activity through which the inner world expresses itself in the outer. As assimilation takes place in the mind, its outstanding characteristic is thought. Through thought, knowledge becomes wisdom; through thought, expression is regulated.

i. Judgment the Central Fact of Thought

Assimilation, being a thought process, is governed by the rules of psychology. But while the term "thought" has been variously used to designate any mental phenomenon, for our purpose it is necessary to limit it strictly to the second category of mental activity, which is judgment. That does not mean that we endeavor to break the connection fore and aft by which judgment is linked to ideation on the one hand and to expression on the other. It merely means that for didactic purposes, we focus our attention upon the link, rather than upon the chain. For in the final analysis, our interest as pedagogues is in furthering the formation of independent judgments by the pupils.

a. What is judgment?

Following the logical system of Brentano¹ we may define judgment as the mental activity of affirming or denying the truth of an idea present in the consciousness. Older psychologists have held that judgment implies a comparison between two concepts. Judgment may, of course affirm or deny relationships in which case there are two concepts in the consciousness which are compared, as the older psychologists say. But judgments may also affirm or deny being or non-being, in which case there is no comparative process; e.g., God is.

b. Pupils' judgments

For the pedagogue, only independent judgments—that is, those which the pupil makes for himself as a result of his own mental activity—are of value. Such judgments are based on evidence present in the pupil's consciousness, and not upon motivation. In saying that such judgments are valuable pedagogically, we do not affirm that the pupil's judgment is objectively correct, that he has marshalled the correct evidence in his mind, or that he has exhausted

the evidence that could be obtained. Nor do we mean to imply that judgments are without motivation—indeed motive is always present in every judgment, as we shall presently see. What makes the independent judgments of pupils, be they right or wrong, valuable pedagogically, is that they strengthen through practice the pupils' ability in the mental field.

c. Motivation of judgments

Logically it is important to distinguish between evidence and motivation, though judgments, properly based on evidence, are also motivated. For instance, in the formation of judgments in the teaching of geography, the geographical judgment may be motivated by previously acquired geographical concepts. We may speak of motivation of a judgment when the judgment is influenced by another mental phenomenon and we are aware of this relationship. The motivation may belong to any one of the basic categories of mental phenomena—it may be ideation, judgment or interest-will; but a judgment can be valid only if the motivation is of the first or second categories and not of the third.² A judgment motivated by interest-will is not valid; we say in ordinary speech "it is not based upon evidence," or "it is wishful thinking." Unmotivated judgments should be guarded against as these are, in effect, like "habitual judgments"—mere blind acceptance of percepts.

d. Judgments leading to concepts

In the last chapter we noted that in order for the percept to be transformed into the concept it is necessary to call up the appropriate apperceptive mass, to interpret the percept in light of this apperceptive material, and thus arrive at a concept. This interpretation is an act of judgment; indeed, even the selection of what is appropriate for apperception involves judgment. At that time we were concerned with the concept and focused our attention thereon.

But now our interest turns to the activity of the judgment, and we note that a concept may be the outcome of a judgment.

The concept, therefore, as an outcome of judgment, becomes important for us. Such outcomes may be either particular concepts—e.g., Mount Washington—or general concepts—e.g., mountain; in either case they are abstracts of attributes perceived during a whole series of sense impressions. When both kinds of concepts have been formed—e.g., Mount Washington, Mount McKinley, Mount Robson as well as general concepts of “mountain”—this situation gives rise to a consciousness of likeness and unlikeness; these two in turn develop a consciousness of similarity, which may be expressed as likeness of structure or circumstance coupled with unlikeness of detail. The concept of similarity is of great importance in geography teaching, where it usually takes the form of analogy. We don't often have an opportunity for logical definition and logical division in our geography teaching because the pupil's concepts are too meagre. Instead of true classification we must content ourselves with incomplete classification, which boils down to counting specific instances; instead of true definitions, we make use of synonyms or descriptions. From the standpoint of the principle of self-activity, however, this situation is not unwelcome, for as the process becomes easier to the pupil, the amount of pupil self-activity grows.

e. Judgments leading to other judgments, or conclusions

When the process of judgment is motivated by another judgment, a comparison takes place and the resulting judgment is a conclusion. From the relationship of the truth or untruth of conclusions there arises the notion of the probable (analogous in origin to the concept of the similar, which, we saw, arose out of the relationship between the like and the unlike). Conclusions may be either affirmatively or negatively:

- A. *inevitable*, in which case they are based upon syllogisms. Such conclusions are either complete inductions or certain forms of incomplete inductions.
- B. *probable*, in which case they are based on certain types of incomplete inductions or on analogies.

In this classification of conclusions we find, as practical pedagogues, that a similar situation confronts us to that which we faced in our examination of concepts as the end product of judgment. Just as we found that true, or logical, definition and division have merely academic interest for us because we can hardly ever use them in geography teaching, so here, too, we find that inevitable conclusions are practically never within the scope of the immature child, but that our geographical reasoning (judgment formation) is almost wholly concerned with probable conclusions.

To understand the application of the inductive process which is used in the establishment of probable conclusions, we may, with profit, recall the sixth of Laplace's laws of probability. "The probability that any one of several possible causes was the actual cause of a given result increases with the probability that that cause will produce the result again." This is the law of probability which underlies our reasoning from cause to effect, (and vice versa,) and which explains why we ascribe regularly recurring results to a particular cause and like results to the same cause. Now, if this law is valid as to causes and effects, it must also be valid as to principles and instances. This makes it applicable to the inductive process, and is the justification for drawing an inference from an induction which is not complete. For the teacher, the law of probability is useful because it justifies the use of inductive teaching, at the same time that it warns us of the danger of unverified conclusions.

B. THE TECHNIQUE OF LOGICAL HEURISTICS

In the process of assimilation activity pedagogy seeks to give the pupil opportunity and power for forming inde-

pendent judgments, whether these take the form of concepts or conclusions. In the last chapter, in considering empirical heuristics, we found it necessary to establish the point that subject matter is a function of method. This fact is of even greater importance in logical heuristics, which require that we consider the *What* of instruction as well as the *How*. By the former we mean the material to be presented; by the latter the way this material is to be learned. Logical heuristics, therefore, is related to the curriculum, the course of study, the method, and the conduct of the recitation. These we will take up seriatim.

i. As to Curriculum

a. Tendency to overload the curriculum

The chief difficulty which faces the pupil and prevents him from achieving independence in judgment is the enormous amount of subject matter which he is expected to master. Moreover, this "didactic materialism" arises not alone from overloading the curriculum, but to an equal extent from the teachers' pride in their special subjects. Each special teacher thinks his own subject the most important; each interprets the curriculum, which, after all, only outlines the field to be covered, so as to include almost everything. To make matters worse, textbooks are chosen because of their "completeness"; the text is then slavishly followed and the pupil is expected to remember everything the book contains. The result of these conditions is the inevitable reaction by extremists in the other direction. So Kerschensteiner advocated cutting down the curriculum to the minima which all children can be expected to master, and the *Leipziger Lehrer Verein* would abolish the curriculum altogether.

b. Suggestions for remedying this situation

To combat the unhealthy specialization which gives rise to didactic materialism, or emphasis on subject matter, we

ought to apply the activity method to all important parts of the curriculum. This method would return the textbook to its proper place in the educational setup. On the other hand, teachers should not go to extremes in their enthusiasm and substitute a didactic formalism, or over-emphasis on methods, for the didactic materialism they are anxious to overcome. We are therefore opposed to the abolition of the curriculum, for we realize that the division of human knowledge into fields delimited from one another is not artificial but arises naturally out of its complexity. Hence, instead of accepting the suggestion of the *Leipziger Lehrer Verein* to defer curricular organization of subject matter until the thirteenth year, we propose an undifferentiated subject for the first three years with gradual differentiation into separate curricular fields beginning in the fourth year. For instance, the undifferentiated subject of child-life³ should be the subject matter for the first three years. During the second and third years certain instructional nodes will have formed, and the materials of instruction will be found to group themselves about nature as one node and human life as the other. By the time the pupil enters the fourth year, the body of subject matter should pretty well have arranged itself into the traditional curricular subjects. Hence, in the fourth to the eighth grades it becomes an educational problem in didactics, to be solved according to the principle of environmental differentiation, to weld the great complexity of the curricular subjects into a unity for the child, at the same time retaining separation and distinction between subject and subject. Depending upon local conditions and local choice, this might sometimes be done by setting up correlations between curricular subjects; other places might prefer the technique of the "concentration" or "core" subject. If the core subject technique is selected, geography would be an excellent choice.

c. The problem of opportunistic teaching

Closely related to the problem of the curriculum is that of opportunistic teaching. A psychological concentration of subject matter would require opportunistic teaching in its best sense. But so long as we have definite goals in education, so long as we have any kind of curricular organization, so long as we must operate our educational system on the basis of mass instruction, we cannot rely upon opportunistic teaching as the normal means of instruction. Let us avoid the fanatical; there is a place for opportunistic teaching under special circumstances, but we should object to flabby, unregulated opportunistic teaching as the chief method. The curriculum should be broadly enough conceived not to suppress individuality, but, under modern conditions, a curriculum is essential.

2. As to the Course of Study

The curriculum concerns itself with the body of subject matter; the course of study attacks the problem of dividing and arranging the subject matter of the curriculum according to pedagogic laws so as to derive the highest educational value from the subject. The process is an analytic consideration of the curricular subject, and the result is an analysis of the subject into parts which correspond to the teacher's "lesson-wholes."

a. The lesson-whole

In any subject, the lesson-whole is determined by the analysis of the subject-whole into its component parts. We can show how this is done in all subjects by citing the subject of geography. The problem always resolves itself into two steps; first, to divide the curricular material, and, secondly, to arrange these divisions according to psychologic laws.

In the case of geography we must consider the whole field and decide how best it may be divided. The subject

being chorological, we find in the space-position concept not only the principle of division, but also the principle by which we arrange the divisions when they have been made. Thus we arrive at the notion of the "natural region," a definite and limited portion of the earth's surface with characteristics of topography, climate, flora, fauna, inhabitants, occupation, ethnography, culture, political history, religion. Each region that the child takes up is successively larger and remoter from the home region with which the series of lesson-wholes starts. Thus, if our school is located in a center of population such as New York City, our starting point in home geography would be the school district. Successively larger units would follow: the neighborhood, the borough, the city, the metropolitan area, the state. We could then go on to remoter regions, e.g., the New England states, the Atlantic Seaboard. Generally it seems best, after the initial study of the immediate home environment, to begin with larger units having more generalized differences and then go on to smaller units with more highly particularized differences. The further afield we go, the larger become the natural divisions, the more generalized must our knowledge be, and the more restricted to salient points must be our teaching. In grades VII and VIII, for instance, the pupil is expected to deal with such vast natural regions as the Russian steppes or the Cordilleran highlands.

By making the natural division the unit in the course of study in geography, we enable the pupil to master the necessary geographical material through self-activity. His attention is directed to particular, delimited, unified territory. In imagination he explores it with help of his map as he explored the home territory in his physical person. The concepts formed in home geography find application in his study of the natural division, he pauses over the thing that interests him most, he expresses himself in drawings or diagrams. As his experiences in home geography have

given him concepts by which he is enabled to interpret the new ideas coming to him in the study of the natural region, he will retain ideas which in turn will enable him to take up new natural regions later on. If the pupil has been thoroughly grounded in home geography, his thoroughness will stay with him on his excursions into foreign fields. If educators wish to make independent thought processes possible for the pupil, this division of geography into natural regions is fundamental in the course of study. But it must be remembered not to make the number of divisions studied too great; better a smaller number thoroughly studied than the whole world superficially skimmed.

A word further about the arrangement of units of study. In the case of geography we saw that the chorologic principle served the purposes of both a principle of division and a principle of arrangement. But we can just as easily divide other curricular subjects if we bear in mind the principle of genetic arrangement; that is a division of the subject whole and an arrangement of its parts which will be in accordance with the principle of natural growth and development. We may regard geography as genetically developing out of the study of the home into the study of foreign parts. Through a genetic arrangement of materials we are enabled to stimulate the pupil's observation, activity and mental processes; heuristics require a developmental approach to new matter.

b. The inductive method

In our examination of the psychological basis for logical heuristics we noted that when judgments lead to other judgments the logical process of induction is being utilized. Induction, in other words, is a technique of logical heuristics and, as such, naturally finds a place in geography teaching. It usually consists of grouping together observed phenomena which have a common causal relationship, and then, by means of a synthesizing process, showing what

this causal relationship is. This procedure is admirably suited to the activity program in that it constantly involves pupil search and discovery of data.

Induction is used by the child long before he comes to school, for it is not necessary to understand a psychological process in order to use it. For instance, the child sees a mountain; his perception consists of "big height" and "hard to climb." But he sees and climbs other mountains, and, through his experience — through induction — he learns that "mountain" does not mean only one mountain, but any great height, that is hard to climb, and that has whatever other characteristics his perceptions have enabled him to form into a concept. Such concepts have extension and intention; it is the business of geography teachers to enrich, broaden and clarify concepts so that they will be adequate connotatively and denotatively. When the concept has been perfected it will be capable of logical definition; but the process of perfecting concepts is a long one, and logically definable concepts can hardly be expected of children before the seventh or eighth grades. In lower grades we must content ourselves with "psychological concepts" — concepts which are understood in extension rather than in intention by the children. But both types of concepts imply the use of the inductive process. If the pupil is expected to develop his own concepts and definitions, not merely to accept passively those imposed upon him, the inductive process is a necessity of heuristic teaching.

3. Special Method in Geography — Comparison

In order to be able to recognize the fact that things belong together under one geographic concept, we need the technique of comparison. This is the process whereby, after investigation, we judge two things to be exactly alike, similar or unlike. Educators advocating activity pedagogy welcome the technique of comparison because it leads so clearly to heuristic teaching. By emphasizing relationships

the pupil is enabled to recognize cause, and to expect the result to follow a given cause. In short, he independently arrives at many geographic concepts.

a. Extensive comparison

When external similarities or dissimilarities are brought into the field of consciousness we have extensive comparison. For instance, when the pupil compares a well-known geographical feature—say a mountain with which he is experientially familiar through his activities in the field of home geography—with a less known feature of the same kind, this process, called extensive comparison, not only clarifies the new concept, but also serves to strengthen and bring into sharper focus the old and better known concept. Again, in the project, "Birmingham is the Pittsburgh of the South," the pupil compares the relatively well known and close at hand, with the lesser known and remoter; the result is a clarification of his ideas not only concerning the remote (Birmingham) but also concerning the more familiar (Pittsburgh).⁴

The process of comparison is to focus the attention on significant features and to subordinate the insignificant, and so to lead to the establishment of types. But this is only another way of describing the systematization of knowledge. Systematized knowledge is science, and we are therefore not surprised that the sciences lend themselves to the comparative method for systematizing knowledge even more fully than geography. Such systematization is desirable in itself and a legitimate sub-aim in teaching any of the subjects of the curriculum. It is the joy of the bright student, whose interests and needs are so often sacrificed to those of the dull. Through such systematization of knowledge the bright student escapes the tyranny of detail by generalization, by clarifying concepts, by regeneralizing according to new principles of differentiation. Systematization, however, is always difficult. It requires

a mass of information before it can take place; hence it can rarely be expected of children under twelve or thirteen.

b. Intensive comparison

Intensive comparison differs from extensive comparison in that it summarizes into a concept the characteristics which have been recognized as common in extensive comparison. It is the abstracting process of comparison, and results in a connotative concept. It is the preparatory step in induction and, in geography, results in "geographic laws." However, the quotation marks will be noted; such laws do not have the effect they would have in an exact science, which geography never can be so long as it deals not only with natural but also with human factors.

c. The causal relationship in comparison

Since we are concerned, from early life on, with the Why as well as the What, the factor of causation will enter very early into our thinking. Without recapitulating the bases⁵ for our belief in the existence of causal relationships, we may note our debt to John Stuart Mill who gave us three methods of applying the Laplacian laws of probability to the inductive method: the method of agreement, the method of difference, the method of agreements and differences.

To retain the scientific character of geography it is necessary that this causal relationship be stressed in the comparative method, and experience has shown that this can best be done by organizing geographical material according to the genetic principle. That is the justification for the schematization usually found in geography teaching—Location, Size, Surface, Climate, Drainage, etc., with which we are all familiar. The important thing is to apply the scheme in its entirety to each of the natural divisions or regions as we take these up successively. For causality is brought out less by comparing two natural divisions as to

any single item in the scheme, e.g., climate, than by showing causal relationships within the scheme itself when the scheme, as a whole, is applied to a natural division. For instance, the pupil might consider the fruitfulness of the great valley in California. This depends upon (is caused by) soil and climate and sufficient rainfall, which in turn depend upon mountains and woods. The fruitfulness (cause) results in certain flora and fauna (effect) and is affected by the geological, hydrographical and climatological circumstances. From these again arise the occupations of the people, their cultural level, etc. Thus the pupil travels back and forth along his scheme for classifying geographical material, always conscious of the interdependence of the parts through causal relationship. So through his study of causal relations, he will inductively arrive at the geographic "law," that similar circumstances will *usually* produce similar results.

d. Applicability of causal-comparative method

This causal-comparative method makes great demands upon the teacher especially in the lower grades where the stock of geographical facts and concepts is small. But it is important that the child arrive at his own conclusions regarding causal relationships, and we cannot too severely condemn the use of textbooks which make geography purely a memoriter subject in the very grades where memoriter instruction does the greatest harm. We can use the comparative-causal method of teaching geographical material even in the first three years, where geography as a subject does not exist, by confining it to simple comparisons and conclusions based upon familiar material from the home field. In the middle grades the activities of observation and experimentation help us in stimulating pupils to formation of concepts and judgments in which causal relations are factors. Through the causal-comparative method we not only safeguard the interests of geography as a subject, but, more important, we satisfy the desire of the pupil

for activity, his drive towards personal acquisition of knowledge.

e. The place of drill

It has been the reproach of the traditional schools that altogether too much emphasis has been placed upon memoriter work. This justified complaint is a temptation to go to the other extreme and to cause us, in our zeal to build up the understanding, to neglect the memory. But if we expect children to function independently in the formation of judgments, we must see to it that they have a sufficient fund of facts available for their apperceptive activities. A logical heuristic method is impossible unless the pupil has in his mind sufficient material for use in the comparison of apperception. The activity school should not try to eliminate drill entirely ; there is a place for mechanical memory.

What we can do, in the first place, is to reduce the "non-understood data" (memorized facts) to a minimum. This is possible by tying such facts and figures, by means of associational bonds established through pupil self-activity, to the work of the understanding, in order that the understood will be largely the carrier for the non-understood (merely memorized). We can also make the work of drilling the irreducible minimum of facts and figures as pleasant as possible, and hence as efficient as possible, by utilizing the pupil's self-activity in those ways in which the individual pupil functions most effectively. That means that drill work must be individualized — that the eye-, ear-, and motor-minded pupils drill differently according to their individual predilections. When we underline an important word, we are drilling the visual type but we are not helping the auditory or motor-minded pupil very much. Let us therefore vary the type of drill ; read aloud, read silently, use rhythm in bodily movements or in voice stress, use written drill, drill by means of expressional activity, etc. As time goes on, the pupil in middle and upper grades will have found out for himself, under this regimen,

what type of mind he possesses and what type of drill is pleasantest and most effective for himself. He will therefore develop his own memoriter system and thereby become independent of help from the teacher.

4. *The Recitation*

The communication which passes between the teacher and the pupil in the classroom is called the recitation. The particular form of recitation that is popularly supposed to stimulate the pupil to think is the question and answer method. Depending on the purpose of the questioning process, the recitation may be repetitive (drill), testing or heuristic. The activity school is, of course, most interested in the last of these three.

a. *The catechetical recitation condemned*

Heredofore teachers have prided themselves on their mastery of the art of questioning, and the advantages of the method were on everybody's lips. This far-famed pedagogic ability is largely delusion, and the child's part in a catechetical recitation a mere sham. The question and answer type of recitation leads to no pupil activity; on the contrary, it militates against pupil activity by reserving all spontaneity to the teacher. The teacher sets the problem, indicates the course the thought is to pursue, and gives the stimulus for each answer. Actually the pupil doesn't even answer the question, for the teacher's question gives the pupil more than half the answer ready-made. The teacher asks question after question and the pupil is laced tighter and tighter into a mental strait-jacket. The pupil does not choose the goal, does not elect the road, does not arouse himself to the energy necessary for the "flying start," does not receive this energy out of his own resources. Everything is done by the teacher, and, insofar as the answers are suggested by the question, the results are unreal and spurious.

b. The dialogue form of recitation

Now there is no doubt that, properly used, the teacher's question can be the means of stimulating thought. The quarrel of the activity school is not with the teacher's asking questions, but with the tyranny of the question which the catechetical recitation so frequently engenders. The quarrel is less with the method than its abuse. Without, therefore, abolishing the catechetical method, which is perfectly legitimate when the aim is to drill or to test and when the questions are framed properly, we ought to realize that the normal type of recitation to be found in an activity school should be the dialogue. What is meant by the dialogue type of recitation? The following analysis will show.

i. What kind of questions?

If questions are to stimulate pupils to self-thinking they must be general questions—not specific questions, as we have been taught in the traditional system of pedagogy. "What are we going to discuss today? Of what shall we speak first? and next? and next? Have we forgotten anything? Who can add to this point?" Secondly, the questions must contain no hint of the answer. Thirdly, they must be varied both in content and in form. The "question" may be a suggestion to make a report, to describe something to the class; it usually requires complete thought units by the pupil, and involves mental and oral composition. Should it be necessary to clarify the meaning of a word, it is time saving not to ask a whole question, but merely to say the word with an interrogatory inflection, which is sufficient to show the pupil that he is to answer more carefully.

ii. Who asks the question?

The teacher, of course, asks questions as we have just seen. But if the pupil is required to express himself fully

and freely, he will soon discover for himself gaps in his knowledge, and he will do in the classroom what he would do in "real life"—that is, ask questions himself. It is only in school that life is turned topsy-turvy, and the one who presumably knows the answers asks all the questions instead of the one who wants to know. The gain of the dialogue type of recitation is that the child's natural acquisitiveness and curiosity will cause him to want to know, to learn, to find out. Whoever suppresses the child's instinct for asking questions kills the desire to learn. Certainly, with pupils asking questions there is danger of wandering off the subject, but that should be avoided by controlling the situation, not by eliminating pupil questions. Let the pupils ask questions, and rejoice; let them ask at any time—and not only at the end of the period.

iii. Of whom is the question asked?

The question may be asked of teacher, of classmate or of the questioner himself. Of the teacher, when the pupil wishes to clear up a difficulty on which information is elsewhere lacking. Of the pupil's classmate, when the pupil's question can be used to stimulate class activity. But the question which is addressed to the questioner himself is pedagogically the most important. This is the question which is the first formal step of the Herbartians, and is called analysis (Herbart and Ziller) or preparation (Rein). It is the pupil's conversation with himself, in which he organizes his thoughts to focus his attention on such knowledge as he already possesses and through which he can tackle the new problem. But it is more than analysis, for it includes aim. After he has asked himself what he already knows, he follows this up by asking himself what he wishes further to know. As the pupil gains in experience in asking himself these analytic questions, he gradually will approach a point at which outside questions will be unnecessary because they will already have been in his consciousness. In this way self-activity will increase, "for the mind

that is active in impression and expression needs no outside stimulus to continue its activity in the direction that the thought indicates.”⁶

iv. Some devices in dialogue-recitation

Pupil questions are not the only means of bringing about lively dialogue. The use of paradox, hyperbole, even irony on occasion will help the pupil over an essential, but not inherently interesting, part of the lesson. Even the denial of a truth may be a pedagogic device; the teacher temporarily denies the correct answer of the pupil, thereby really challenging the pupil to justify his answer and clarify and strengthen his thought. This sort of thing can only take place in a class in which a friendly and cooperative spirit exists—if the teacher were “weak” the device would lead to disorder; if the teacher were a “disciplinarian” the denial would end the matter, and the thought process would be inhibited. Similarly, though it may be heresy to say so, it is sometimes a good device for the teacher purposely to lead the pupil astray. The pupil is trapped into denying a correct answer by the teacher, or into asserting an incorrect proposition himself. He is then led, through a chain of reasoning, to a *reductio ad absurdum*—the Socratic maimeutics. All these devices have their place, for the main purpose always is to find the truth, and the secondary purpose is to show that the truth can be arrived at through one’s own efforts.

v. Difficulties of the dialogue recitation

We have admitted the danger of wandering away from the topic inherent in a situation in which the pupil asks the questions, and have suggested that the danger could be avoided by controlling the situation rather than by eliminating pupil questions. But controlling the situation requires an experienced teacher, one who keeps the pupils spontaneously active, but always in proper channels. Such a teacher keeps ever in his mind the lesson-whole, and the

division of the lesson-whole into convenient thought units. This is a form of Herbartianism which the activity school would do well to retain, for it is only by having a definite goal to reach in each definite subdivision of the lesson-whole, that wandering afield can be avoided. The entire lesson-whole should be delimited by a statement of aim—the project, or the posing of a problem. In many cases the pupils will spontaneously break the whole problem into its subordinate parts, and the immediate sub-problem can be delimited through statement of immediate goal. The longer the process (that is, the larger the lesson-whole or unit) the greater the need for keeping the immediate goal in mind.

C. SUMMARY

Mental assimilation revolves about the second of the three psychic phenomena, judgment, its end product being either a concept or another judgment, called a conclusion. To enable the self-active pupil to perform the work of mental assimilation is the purpose of logical heuristics, but this purpose cannot be achieved unless subject matter, curriculum, course of study, and the conduct of the recitation are all directed toward this end. . . The curriculum, overloaded at present, should be cut down considerably, but not abandoned. . . The course of study should provide for unspecialized instruction in the primary department (grades I to III) with progressive differentiation into traditional curricular subjects as the pupil advances beyond the primary grades. . . Undifferentiated subject matter in primary grades makes for unity in the learning process; in the intermediate grades unity comes through combination or concentration subjects; in the upper grades, through correlation and the inner unity of activity methodology in all subjects. . . The course of study should divide and arrange curricular material according to the genetic principle, not only in geography, where the genetic principle takes the form of division into "natural regions," but also in the other

curricular subjects. . . Judicious use is to be made of opportunistic teaching, especially in the first three years; but the teacher's main reliance should not be upon this form of instruction. . . To enable the pupil to form concepts or judgments (that is, to do the work of mental assimilation) he should be given plenty of opportunity to use the inductive method. . . Each curricular subject presents its own special difficulties, hence a special method for each subject should be worked out. (In geography, that method takes the form of a causal-comparative method.) However, the special methods of all subjects should be as rationalistic as possible. . . Drill may not be abandoned, but should be made pleasant and efficient. This requires that the form of drill should be adapted to the sensory type of the pupil who is to take the drill. . . The dialogue type of recitation should be generally adopted for heuristic reasons, and the catechetical recitation reserved for testing or drill purposes only. Such dialogue recitation is regulated by setting up a general problem ("project" or "lesson-whole") divided into smaller units ("partial problems") at which the pupil works, through self-activity seeking the solution to the partial problem, thereby advancing toward a solution of the greater problem comprehended in the lesson-whole.

CHAPTER VIII

TECHNICAL HEURISTICS

Our analysis of the heuristics of expressional activity must of necessity differ from the corresponding treatments of empirical and logical heuristics in that we lean more heavily upon the subject of geography, which we have chosen as the vehicle for illustrative purposes. For, while the heuristics of concept formation and judgment may be discussed to a considerable extent in general terms and as applicable to any subject, expressional activity must have some definite form—a *Darstellung*, a representation of something. Such expressional activity is a psychophysical act, characterized by a high degree of self-activity, by which the inner world impinges itself upon and modifies the outer through a representation that is visible, tangible or audible.

A. THE PSYCHOLOGICAL BASIS OF TECHNICAL HEURISTICS

The psychological basis of technical heuristics has, to a large extent, been introduced in connection with other aspects of our study of the activity school. It will be remembered that in our account of the history of the activity school we discussed the psychological contribution of Scherer.¹ He found that expressional activity, being a response to an innate drive, is a necessity of child nature, and its artificial suppression injurious. We also noted that Scherer pointed out that expression takes many forms, that it is a psychophysical activity, and that the will and the judgment are involved.

We also touched upon Lay's experimental contribution to the activity school.² Lay found a great didactic advantage in stressing expression, an advantage which he saw was almost completely unused in the traditional learning schools. In his enthusiasm, we saw that he went too far,

for he insisted that there may be no impression without expression in the learning process. While it is true that every stimulus effects some response, Lay erred in not realizing that the response may be inner response only; may, in fact, be the very suppression of outward response. On the other hand, expressional activity, while it is not the only kind of pedagogic activity, is nevertheless a very important kind. When the response to stimulus is involuntary, with no part of the will involved, with no interposition of consciousness, such response is called a reflex action and no learning occurs. Reflex actions are not, therefore, part of the field of pedagogical expressional activity.

When true expressional activity arises there must first have been a concept present to consciousness which motivates or stimulates the third mental category—the interest-will-emotional part of the mind—toward action of some kind. Where the attention of the mind is involuntary, interest stimulates to action; where the attention is voluntary, the will stimulates to action. In either case the concept originally in the mind motivates the interest-will toward action. But this action is for the time being only a *contemplated* action; in other words, it is another concept. This second concept of contemplated action is then subjected to the judgment, where a whole series of determinations must take place.⁸ Is the act good or bad, worthy of doing or not? What is the purpose of the act? What is the right way to do the act? The contemplated action is weighed and considered for a longer or shorter time in the judgment until a conclusion is reached. All this occurs, of course, very rapidly in most cases, consuming only a fractional part of the time it takes to analyze the steps. But it is not until the judgment has resulted in conclusion that the will again comes into play and the act is willed.

But, as we have already seen from our discussion of positive hodegetics, this picture is oversimplified. Actually, most pedagogical expressional forms do not consist of simple definitive acts like saying "yes" or reaching for a book,

but, on the contrary, involve a whole series of acts. The original decision might be "I will build an aeroplane model"; but the act contemplated is a long series of related acts each of which brings in concepts, judgments and will. This constant activity of all three types of mental phenomena is what makes expressional activity so fruitful from the pedagogic standpoint.

B. THE TECHNIQUE OF TECHNICAL HEURISTICS

We have seen in our discussion of empirical heuristics that, as we pass from home geography to the geography of foreign lands, the object of our sense perception changes from the three-dimensional world of nature, which we see about us, to a two-dimensional object, the map. To bridge this gap we proposed models and reliefs. Now, when we consider technical or expressional heuristics, we similarly note that the ultimate of expressional activity in the subject of geography is map drawing, but as this is difficult and at a rather high plane of expressional development, it is necessary to lead up to this technique of expression gradually. We must therefore consider—as types of expressional activity—first the model, which bridges the gap between the three-dimensional world and the two-dimensional representation of the world in a map, then the map itself, and finally two other significant types of expressional activity in geography, namely, the spoken and the written word.

i. *The Model*

Modelling, a three-dimensional representation of geographical phenomena, may be done with wet sand, with clay or with plasticine. Wet sand is cheap, easy to work with, but quite inaccurate; clay is more accurate but causes much dirt. The best material therefore is plasticine, which is fast and accurate in work and does not cause dirt in the classroom. It is, however, somewhat expensive.

a. The model in home geography

The model, as a form of expressional activity, should come early in the geography course in connection with home geography. In speaking of the arrangements of the schoolroom, for instance, little models of benches, closets, etc., may be made, these then placed upon a slate or a horizontal blackboard and their outlines traced. In this way the pupil gets his first contact with the idea of ground plan — i.e., the map. Gradually the area so modelled and depicted may be extended to include the school, then the neighboring streets, then the locality. While this large model is being slowly built up, rough models in sand may be used to teach the value of subordination of unimportant detail and emphasis on salient features. The types of geographical objects which lend themselves to modelling are those in which altitude (height) plays an important part, e.g., mountains, buildings, etc.

b. Model in foreign geography

However, it must be admitted that while the model may be used as expressional activity in home geography, its chief function at that level is as object from which to learn. But in the geography of foreign parts the opposite is true; the model regularly functions as expression after map study. From the pupil's models the teacher can see whether he has formed accurate concepts, and the pupil, besides expressing his concept, fixes it by the very activity of expression on which he is engaged. When large areas are represented, when, consequently, detail is suppressed and only salient features retained, or when time presses, sand rather than plasticine should be used. Through such expressional activity the pupil will soon come to the realization that all maps only approximate the truth, that he is justified in representing large masses by means of their salient features only, and that, where detail is clearly advantageous, he can always make a more detailed model of

smaller area. Thus a country may be represented by a rough sand model; its principal seaport by a more detailed model in plasticine.

c. Models in geographic experiment

The same models which the pupil makes as a means of self-expression can also be used in further geographic study by means of classroom experimentation. For instance, the plasticine model of a mountain range may be progressively submerged in water and observed; or it may be flooded with light at an angle and the shadows observed, thereby preparing pupils for later map drawing in which altitude is depicted by means of shading. Here we see how expression leads to further impression, and how technical heuristics is closely related to subsequent empirical heuristics.

d. Models of geographic apparatus

Sometimes the pupil prefers to express himself in a model not by representation of a natural object such as a mountain, but by the production of a piece of geographical apparatus. Such apparatus—sun dials, theodolites, etc.—are pedagogically superior to bought apparatus, because they are appreciated by the pupils as being a result of their own efforts, and because they necessitate a simplicity of experiment, which is didactically a gain. Such apparatus are constructed out of odds and ends of all kinds of material—cardboard, wood, wire, rubber, paste, glue and what not. The work is usually started as expressional activity in the geography period, but should the time prove too short to complete it, it can be continued in the regular manual training period, this being no disadvantage, but rather a gain, in that it makes for close correlation between geography and manual training.

e. Use of paper in models

Because of its relative lack of plasticity, paper is not used very much in geographical activity. There are however

some notable exceptions to this rule. For instance, in early stages of modelling during home geography period, houses in a ground plan model are frequently constructed of paper pasted over tooth-pick frameworks; the paper available being colored, the children frequently display considerable ingenuity in having the model resemble the original quite closely. Such paper houses also lend realism to models in sand, especially when bits of mirror or glass are added to represent lakes, a bit of blue ribbon to mark the path of a stream. Paper models usually are associated with home geography.

A very useful device is to cut out cardboards according to the shapes of elevation circles on a contour map. The layers of cardboard can then be pasted together in proper position, and the sharp edges smoothed by an application of a mixture of 50 parts French chalk, 65 parts gypsum, 10 parts of water, 10 parts of thick glue and 20 parts of glycerine. The result is a relief map which translates the contour map quite faithfully. Of course, the making of such a relief map will take time. But the time will be well spent because the relief, especially when colored, will be fairly true representation; because the relief is an almost imperceptible transition to the contour map; because the time element can be considerably reduced through division of labor; and finally because one such exercise carried to completion is didactically sufficient for teaching purposes. Furthermore, from the resulting relief, a negative can be made; and from this, as many positive replicas as may be desired.

2. *Drawing as Expressional Activity*

But the most natural form of expressional activity in the field of geography is drawing. We therefore ought to examine the advantages, uses and forms of drawing as expressional activity.

a. Drawing a kind of "speech"

Every subject of the curriculum increases the stock of ideas of the child which he wishes to express. But in geography, ideas are largely of spacial relationships, which, because of their nature, can best be expressed by drawing. Hence drawing may be regarded as a form of speech, not as widely applicable as verbal speech, but superior to it in its own particular field. It is intelligible to anyone, not only to the initiate as in language; in its own field of expression of spacial relationships, it is more rapid and more accurate than verbal speech. The superiority of drawing over verbal speech in expressing spacial relationships rests upon the fact that it appeals to the visual sense—that is, to the same sense through which the mind gets its idea of space relationships in the first place—while verbal description, which can express the space concept only with difficulty, slowly and only approximately, has to rely upon the auditory sense. Furthermore, when color is added to space, verbal language breaks down almost completely, for color cannot be described in words; it sometimes can hardly be measured even on a color scale.

i. Drawing both a subject and a means of teaching

From this it will be seen that drawing is a legitimate language which must be employed in subjects such as geometry and geography. Pedagogically it would be reprehensible to neglect it as a means of expression. But that implies that, just as the child has to be given skill in verbal speech so that he is enabled to express himself, so he must also be given mastery over the technique of this special speech for space relationships. Like language, drawing, therefore, is at once a subject and a means of education—an end in itself, and a means to other ends in other subjects of the curriculum. In this regard, drawing and language are in a position analogous to pedagogical activity, which also, as we have seen, is at once a subject (pedagogical

activity) and a means of learning in all subjects (activity pedagogy).

ii. Drawing is not necessarily art

The teacher of geography, naturally, is not concerned with drawing as a subject, but only as a means of education — as a speech through which the child can express himself. Consequently, for the geographer, drawing is not an art, which only the gifted can master, but a technique within the grasp of every child.⁴ The position of drawing as a speech makes it, for the geographer, exactly analogous to language; both drawing and oral speech may be arts, but just as no one advocates giving up instruction in verbal speech because the native talent for artistic expression in classical phrases has been withheld from the majority of our pupils, so we should not give up instruction in drawing because artistic creation in this field is limited to the gifted. The popular conception that the eye and the hand, united in an expressional activity — drawing — are less adept than the palate and other vocal organs, has no basis in fact; on the contrary, when we see the spontaneous expression of the child in drawing, we suspect that drawing is the more natural and easier language for the child. It would, therefore, be contrary to all the professed ideals of activity pedagogy if we were to neglect this means of expressional activity.

b. *Reform of drawing methods needed*

Expressional activity through drawing in the field of geography boils down to the making of free-hand maps. But while there is no longer any argument concerning the truth that drawing should be used expressional in geography, there is still some debate as to how it should be used. Should we give the pupils much or little help in their map making; should we furnish outline maps, should we furnish sheets in which salient features of the maps to be made have been accurately printed? — these are some of the questions

over which the methodologists of geography are in dispute. The activity school points out that free-hand map drawing, without any printed crutches, is the only kind of map making in which the pupil can be said to be really expressing himself. That does not mean that the pupil should dispense with guide lines; it does mean that he should discover them for himself, and utilize them according to his own individual needs. The educators who advocate various types of printed help all fall into the error of thinking that pupil map making is aimed at as perfect an accuracy as possible. This is not the case; the pupil should not work in competition with printed maps, but should be giving expression to his concept of geographical space relations.

i. Inadequacy of analysis of drawing pedagogy by "experts"

Drawing as taught at present does not result in pupil mastery of a technique of expression. Furthermore, the recent reform movement in drawing instruction has accomplished nothing of importance and has petered out into mere suggestions to use certain devices whose effectiveness depends upon the ability and the talent of the pupil. The drawing specialists have proceeded with their analysis of drawing activity only so far as to find two factors involved: correct visualization and skill of the hand. The inadequacy of this analysis must become immediately apparent when one considers that between these factors lies an entire field of activity focusing about formation of proper concepts which must be carried in the memory. The cause of poor drawing may lie in any part of the field. As a matter of fact, most people cannot or do not visualize properly; they see, not analytically, but merely for the purpose of being able to recognize. However, as the improvement in methods of teaching drawing are the special consideration of drawing teachers, space is not here available to go into these questions. But reform in drawing

methods is imperative, for the results which are now being obtained are far from adequate to enable the pupil to use his knowledge of drawing technique as a means of self-expression as easily as he uses his knowledge of language for the same purpose.

c. *Map drawing*

The pupil who wishes to make a map has, as his first problem, the determination of what he is to draw. He must focus his attention upon a portion of the earth's surface, regarding this not so much as a part of the whole earth, but more with reference to its placement in immediately contiguous areas. As a necessary help he should construct a vertical and a horizontal axis, choosing as the point of intersection some important focal point on the map. For instance, Moscow would be a natural focal point for a map of Russia, as Madrid would be for a map of the Iberian peninsula.

i. Recording position and direction

Having erected the axes, the first step is to record the position of as many places as conveniently possible by their use. Thus places north or south of the focal point (or nearly so) are located on (or near) the vertical axis; places east or west (or nearly so) are located on (or near) the horizontal axis. The completeness with which this is carried out depends upon the amount of detail the pupil wishes to have in his drawing or the purpose he has in expressing himself through the map.

When position of places on or near the axes have been recorded, the axes have served their purpose. Erasing them but retaining the recorded positions of points, the pupil next records a series of directions. He does this by passing imaginary direction lines through the focal point and noting position of salient points thereon. Thus on a map of the Iberian peninsula with Madrid as focal point the cities of Lisbon, Barcelona, La Corona and Gibraltar

may be seen to lie at unit distances away from Madrid along four radii. It is pedagogically important, however, to bear two things in mind: first, that these unit distances must be natural,—they must be distances between significant points on the map; and secondly, that the pupil himself should make the construction help he needs to draw the map on which he is working.

ii. Recording area

In making use of distance in various directions the pupil is building up a concept of area, for area is the mathematical product of length and breadth, both distances. The idea of area, however, also includes the concept of shape; here the pupil's imaginative and observational powers are called into play. He must learn to see areas as geometric forms, not by having these similarities thrust upon him, but through his own observation and discovery. Naturally there will be differences in the ways individual pupils see certain areas; for instance, the Balkan peninsula looks like a triangle to one pupil, like a trapezoid to another, and like a trapezoid with a smaller trapezoid subjoined to a third. All three are right, and all three pupils potentially are equally good at drawing maps, for the geometric pattern which is suggested is in each case a kind of "guide line" to the actual shape of the area which it suggests.

In passing we may note that when we wish to represent area divorced from shape—when we wish to represent magnitude—we can do this most successfully by means of the regular geometric figure. Thus squares drawn to scale to represent the relative area of several of the states of the United States will be far more valuable pedagogically than the table of figures in the index; other geographic concepts which could be represented graphically are areas of islands, seas, continents, oceans. The segmented circle graph is very useful when we want to show relation of parts to a whole, e.g., the division of a country into woodland, farmland, wasteland, pasturage, etc. Graphic representation of

size by means of length of lines had better not be used, as children often are confused by the representation of square measure in terms of linear distance.

iii. Recording altitude

When altitude is combined with only one other dimension, length or breadth, it presents no difficulty. But as soon as we try to record altitude, the third dimension, on a two-dimensional piece of paper our difficulties are enormous. Of course the more scientific means of recording altitude, e.g., through contour lines, have no place in elementary school geography. But there are two ways of recording altitude left to the pupil. The first of these is the method whereby mountains and mountain chains are recorded by means of closely placed diagonal lines. This method is satisfactory when exact or relative height is not important, when merely the fact that high altitude exists is to be recorded. It is best adapted to recording mountain ranges instead of individual mountains for the significant fact about mountain ranges is that they have direction as well as altitude.

The most satisfactory method of recording altitude for the pupil of the elementary school is the method of shading. By it, length, breadth and height can be shown simultaneously; with the use of a soft eraser it is possible to get several graded shades of black, grey, light grey or white, according to the altitude to be depicted. This method will be quite inaccurate, but it is to be remembered that the purpose is not primarily scientific accuracy.

iv. Recording secondary characteristics

While map making by pupils is primarily a representation of chorological characteristics, it also, to a lesser degree, gives opportunity for the recording of human factors in geography. These so-called secondary characteristics are represented symbolically, the symbol usually being self-explanatory. They consist of such data as the presence

of natural resources, battlefields, mines, the navigability of rivers, etc. When the symbol for the thing that it is desired to record is not in general use, this condition is not a disadvantage, for the pupil naturally is impelled to invent an appropriate symbol for himself.

d. Divisions of geography suitable for drawing

While we have placed the emphasis of geographical drawing on map drawing of physical features, we ought not to forget that all the departments of geography can be benefited through this form of expressional activity. Thus in mathematical geography the concepts which the pupil gains with regard to planets, movements of earth and moon, zones, etc., can be easily and accurately expressed by means of drawing. Again, in the department of human geography, ethnological ideas such as the distribution of racial strains in, say, South America, can be graphically depicted by means of drawings. Indeed closer study will reveal the fact that in every department of geography—from home geography to the most specialized field—the drawing is the most advantageous means of self-expression available to the pupil.

e. The object from which the drawing is made

A review of the subjects of geographical drawing will show that nature itself can furnish only a small proportion of the objects to be drawn, chiefly in home geography. Geographical drawing is steering clear of the misconception that drawing should only be attempted from the natural object. The "object" of geographical drawing may be a picture or a map as well as nature. For, while the desirability of drawing from the natural object is conceded, the needs and nature of the subject must also be considered; and where so much of our material, indeed all of it except that part which is designated as home geography, comes to us out of books and through maps, it would be futile to keep geographic expression in drawing confined to

drawing of objects present in nature. Furthermore, there is always a large group of pupils who can do their best work with a picture, a map or another drawing before them. Taking these individual differences and the needs of the subject into account, we recognize that reproductive drawing—which need not be mere copying—is a legitimate type of geographical expression.

f. *Types of geographical drawing*

Geographical drawing may take the form of perspective drawing. However, before using this form of drawing, we ought to make sure that the illustrative perspective drawing is clearly of geographical interest; usually perspective drawing takes so much time, and has so many non-geographical factors involved in its production, that this type of drawing, theoretically possible as a form of geographical expression, is not found.

The commonest type of geographical drawing is, of course, the map, and this being concerned chiefly with spacial representation, it follows that for the most part geographical drawing is projectional instead of perspective. The map is usually thought of as a horizontal projection of the first two dimensions—length and breadth; however, the vertical projection of first and third dimensions—length and height—gives us the profile, which, in its special form of cross section, is a very useful type of map drawing and ought to be used more often than it is at present. It can be employed as another bridge between reality and perspective; also as bridge between reality and map, for it has aspects of both types of representation.

Without forgetting that the prime purpose of geographical drawing is to give the pupil a quick, easy and adequate language of space relations, we need not eliminate accurate projectional drawing altogether. Naturally, such map drawing would be taken up only at the high school level, after pupils have acquired the technique of self-expression through drawing. This type of drawing gives less oppor-

tunity for self-activity, but the exercise is nevertheless useful because of its high value as a training in observation. Similarly, there could very well be a place for *careful* copying of a map ; such work is pedagogically valuable, though it calls for a lesser degree of self-activity than other types of geographical drawing which we have enumerated.

A third type of drawing which can be utilized for self-expression in geography is schematic or conventionalized drawing. In this type all detail is suppressed, the outlines become simple, conventional geometric patterns and everything is subordinated to the clarification of the salient factor. The product of a schematic drawing is the geographical sketch, by which is meant an easily and quickly executed drawing. It does not aim at beauty, and it is only relatively true ; but it must be simple, definite, characteristic, easily made, and intelligible.

Since such schematic sketches are based upon simplified line structure, it may be thought that this activity could be introduced early in the geographical course. This is, of course, an error. In schematic drawing the parts are simplified, and the drawing therefore is made easier ; but we must not forget that in schematization the mental process is the difficult part of the work. This mental part, which takes place before pencil is placed upon paper, consists of a high degree of generalization and abstraction, and the young child could never hope to accomplish it. A pupil must have arrived at the stage of formally accurate representation, which implies an accurate concept of form, before he has the ability to decide what is characteristic, important, worthy to be retained, and what, on the other hand, is incidental, unimportant and suitable for discarding. To introduce schematic drawing early in the course would be to go counter to the principle of development ; and any "results" obtained would be spurious, and derived not from the children's own powers of generalization, but through a slavish imitation of a schematic drawing imposed upon them by the teacher.

Even at the upper levels, where children can see for themselves which features are salient and which are unimportant, and can invent appropriate schemata to represent geographical ideas, drawing should not be confined exclusively to schematic drawing. Otherwise the basis for all drawing efficiency will be neglected—the ability to see accurately and in detail, the so-called analytical visualization, which leads to an accurate concept. Along with schematic drawing should go careful, detailed drawing; in the upper grades of the secondary school, detail drawing and scientific map drawing merge.

g. Drawing from memory

We cannot agree with those specialists in drawing who advocate that drawing from memory should be introduced early in the course. According to the researches of Meumann drawing from memory without a clear mental image is not only useless but positively harmful because, first, it trains children to operate and be satisfied with imperfect images, and, secondly, it causes the wrongness of the drawing to react upon the image and make the image wrong also. Geographical drawing aims at analytical seeing; it cannot, therefore, support the position of those teachers of drawing who would make practically all drawing drawing from memory.

But the case is different when drawing from memory is combined with drawing from copy, because analytical visualization is part of copying, and every advance in efficiency in copying is also an advance in analytical visualization. Furthermore, in copying, there is a constant comparison between model and product; through such comparisons the need for analytical visualization is felt, and the pupil becomes aware of the shortcomings of the product. At first the pupil is dependent upon the criticism of the teacher, but gradually he becomes emancipated and can criticize his own work—a gain from the standpoint of activity pedagogy and the principle of self-activity.

Copying, then, is a sort of simplified drawing from memory, and, as a preparatory step, such drawing from copy is pedagogically useful.

If copying is preparatory to drawing from memory, we must gradually reduce the differences between them. The pupil should be encouraged to take in—to visualize—a larger and larger portion of his model, so that in the course of time he will arrive at the point where he can retain an entire visual image and reproduce it from memory. Concentrated attention is essential; that is why many teachers urge the children, after concentrated looking, to close their eyes and "see the model"—the gain being that by shutting out other visual images the child can concentrate his attention on the image he is trying to memorize. Lay⁵ urges pupils to supplement the visual image with motor images—the finger moves about the object or model and is followed by eye movements. The gain that Lay sees in this technique probably is caused by the fact that as the eye follows the finger, a series of partial analytical visualizations takes place, and this is the cause of the gain. Especially is this true because the time factor is lengthened through such movements—the object is visualized for a longer time. We must always return to analytical visualization in all drawing problems. Exercise in such visualization, whether obtained as a result of copying or from the object in nature, is the best means for training in visual memory.

b. Drawing by pupils lacking manual dexterity

To overcome the disability of a class of students who cannot draw well because they lack manual dexterity various exercises have been proposed, but the elimination of this handicap cannot be undertaken by the teacher of geography without neglect to his own subject. For geographical drawing, the best plan is to stick to its special method and leave to drawing, as a specific subject, the problem of improving the child's manual dexterity. For, after all,

the purpose of drawing in geography is to supply the children with a language to express space relations; the techniques for this language are comparatively simple and few, and with purposeful practice the child becomes fluent in graphic as in verbal speech. The pen and the pencil are the only instruments that are used; the final product may be colored, for color adds to intelligibility.

i. Geographical drawing and esthetics

While the inculcation of an appreciation for the beautiful is not a specific aim either of geography teaching or of geographical expressional activity, it nevertheless remains true that the drawing of geographical material frequently results in esthetic gains. The basis in geography teaching for appreciation of art forms is, to a large extent, the memorization of landscape or picture in its details; this ability is conditioned by the ability to analyze, which the child practises in geographic learning. The result is that the geographic drawing is not merely an intelligible symbol, but also the means of awakening emotions. Through empathy we associate feeling with lines and colors. The horizontal line arouses feeling tones associated with stretching out, rest, restraint, moderation, peace; the vertical line arouses feelings of strife, movement and aspiration. Similarly colors arouse characteristic feeling tones; yellow arouses a sense of light, power, glory; red, of life, love, excitement; blue, of coldness, restraint, asceticism. The geographical picture, first because it is subjected to an intensive analytical visualization, and secondly because the process of production gives further opportunity for the influence of empathy to manifest itself, is therefore found to become an esthetic as well as an intellectual experience.

3. Oral Speech as a Form of Expressional Activity

From the foregoing it will be seen that drawing is superior to verbal speech as a means of communicating ideas or concepts in its particular field—that of space relation-

ships. But as soon as other kinds of concepts are to be transmitted, verbal speech returns to its position as the most flexible and exact means of communication which the human reason has evolved. Through it the most intricate relationships can be expressed, because verbal speech alone has had a complete syntax invented for its implementation.

But are we justified in thinking of oral speech as pedagogical activity? Zealots in the cause of activity pedagogy have occasionally belittled the value of speech as an activity, because, in their reaction against the large part that mere talk plays in the traditional schools, they would go to the other extreme of denying speech its proper place in the educational process. There is no doubt, however, that speech is pedagogical activity. It is psychophysical activity; it is purposive; it involves the use of energy to overcome resistance (mental); it brings about changes in the phenomenal world, for the hearer is to be affected by what the speaker says. These were the criteria which we set up when we wished to determine whether a given activity could be regarded as pedagogical activity; oral speech, therefore, may be expressional activity.

Instruction in geography makes use of a large number of categorematic terms which it should be the purpose of instruction to make available to the pupil both as concepts in the mind and as terms to be used. Indeed every type of curricular instruction carries the same duty—that of furnishing concepts and the vocabulary by means of which these concepts may be communicated. This it can do only through rich associations; especially in the lower grades is it important to treat geographical terms in this widely associative way, such association of concepts being in accord with the principles of activity pedagogy.

The pupil achieves self-expression through speech when, through self-activity, he has made the concept clear to himself, and when, through mastery of appropriate vocabulary, he can make his concept clear to another. Hence, if oral expression were considered appropriate only to the lan-

guage classes, much useful subject matter would be lost. Geographic instruction gives plenty of opportunity for training in oral expression once the old catechetical form of recitation has been supplanted by the dialogue form of recitation as we have suggested in the previous chapter in our discussion of logical heuristics. Opportunity to speak arouses desire to speak, and in time the pupil gains self-confidence.

4. Writing as a Form of Expressional Activity

Finally, the pupil's self-expression may take the form of written speech. Everything we have said of oral speech as a form of expressional activity holds true for writing as well. There remains to be noted the fact that through writing we can make permanent the processes of thought, and conversely we can, through written records, recall to consciousness thoughts that once existed. The motor-tactile type of pupil will take to writing as a means of expression in preference to talking, and, as it is the purpose of the activity school to individualize instruction as much as possible, this type of pupil should be allowed to practice the activity in which he most completely feels at home.

A modification of writing that is sometimes employed in geography teaching is the making of tables, of statistics, of entering in appropriate places records of observations. This practice has much to commend it, for it is clearly pedagogical activity of a useful sort. On the other hand, the practice of writing out a description of data recorded on a chart introduces the artificial difficulty of a new vocabulary, which would intervene, as it were, between the chorological symbols of the chart or map and the purity of the spacial concepts which they stand for. This type of exercise had better be omitted.

Another common form of expressional activity, which has much to recommend it, is the making of a notebook or a scrap book in which the pupil may enter his written or drawn representations of geographical fact. In the

lower grades, where instruction should be undifferentiated, a single notebook for all subjects should be employed. The geographical matter it contains should consist of paper cuttings, transparencies, picture postcards, newspaper clippings, etc. In this way the notebook of the pupil will gradually grow into a self-made textbook, which will be the more appreciated because it is the work of the pupil himself.

C. SUMMARY

In our discussion of the application of technical heuristics to the study of geography, we have seen that both hand and speech are forms of expressional activity. Manual expressional activity may take the form of model construction or geographical drawing, and other forms are also possible. There should be correlation between manual expressional activity in geography and manual training, as a subject. There should be similar correlation between geographical drawing as expressional activity and the independent subject of drawing. Since drawing is a principle of method in other subjects, improvement in the didactic processes in drawing becomes the concern of all teachers. Similarly, since speech, both written and oral, is a form of expressional activity in other subjects, pedagogical improvement in language teaching is likewise the concern of teachers of subjects other than language. The lessons learned in making use of verbal language, construction of models, and drawing as forms of expressional activity in the subject of geography, have application also to other subjects of the curriculum.

PART THREE

APPLICATIONS AND CONCLUSIONS

CHAPTER IX

PRELIMINARY ORIENTATION OF ACTIVITY SCHOOL WITH REFERENCE TO OTHER EDUCATIONAL MOVEMENTS

The first two sections of this study have been devoted to the problem of developing a concept of a present-day activity school. The problem involved an examination of the sources of activity pedagogy in the past and the study of the modifications brought about by educational thinking in more recent times. Then, after a critique of sources and suggestions for modification had given us a basis for determining what an activity school actually is, we proceeded to a detailed description of such a school. We examined and defined pedagogical activity, determined the basic didactic principle upon which the activity school rests, selected and justified the aim of the activity school, and finally described and illustrated its method. In our entire study of the activity school up to this point we have tried to follow a genetic and rational method of developing our subject; in this we were faithful to that dictum of logical heuristics which urged the advantages of such developmental, evolutionary procedure.

But our problem in the concluding section of this study does not lend itself to such easy solution. The task which stands before us is to point out possible applications of this concept of the activity school to present educational theory and practice. Such applications are largely matters of opinion; and, as educators are individuals no less than their charges, the applications which individual educators make will vary in accordance with differences in their viewpoints and educational philosophies. Under the circumstances, a certain sketchiness and arbitrariness in selection are bound to arise.

Regardless of what applications, if any, we make of the study of the form of activity school which has been presented in these pages, we ought to have a clear conception of the theoretic relationships which exist between the activity school and other movements for educational betterment. That is the problem in the present chapter—the task of orienting the movement for activity education with regard to the many other educational movements of recent times. Is the activity school just one of many reform movements in education, or is it of greater significance? Does the activity school combat reform movements in education, or does it cooperate with them? Is the activity school a type of education, or does it aspire to be education itself? These are some of the questions which arise, but which can be answered only after we have examined the relations of the activity school to other educational movements and to the traditional school which we have inherited from the past.

A. PROPOSALS FOR CHANGE A SIGN OF VITALITY

It is unfortunate that there are still many educators who feel that education is at its best when its theory is settled and stable and when its practice continues according to "tried and true" established methods. For such people all proposals for change are but disturbing influences, and their proponents merely hotheads who delight in "rocking the boat." Such people betray by their attitude their entire lack of understanding of the evolutionary principle. Everything about us—the arts and sciences, the structure of society, the sanctions of philosophy—is in constant flux; surely education cannot be the exception to the universal rule. It is true that we have set up for education a constant—an "eternal verity"—as a goal; but if the goal be constant, the way to the goal may well lead in a zigzag course of tack and turn in accordance with changed social and cultural conditions.

The changes which occur in modern life take place

more rapidly than changes used to come when the pace of living was more deliberate. Hence within comparatively few years we are confronted with a host of sometimes contradictory demands for educational change. Naturally, among so many proposals there must be much which is mistaken, distorted, even fanatic, but the demand for change itself is a healthy sign, for it attests the vitality of education and the intimate connection which education has with the cultural life about it. Progress in any field is seldom in a straight line but usually results from a pendulum motion of backwards and forwards with always a small residuum of gain. So it must be with education. Our educational leaders, therefore, must learn to weigh and consider each new proposal as it arises, neither embrace it just because it is new, nor reject it for the same reason. True, we have a duty to weigh and consider each new proposal carefully before applying it, for human material is too precious to be wasted in fruitless experiment. On the other hand, if we have carefully weighed, considered and tested the new idea, we should apply it to our pupils without fear of a possible reproach later that the new idea was not, after all, of advantage to the pupils. By giving the pupil the best we know, we give him the best training that his times afford; and that remains true even if subsequent research and experience show us that what we regarded as a gain is not really the advantage we had thought, but a false hope which we have to abandon.

In discussing past and present contributions to activity pedagogy we assembled educational movements under several categories according to their chief trends. Can we now gather them together under one head? Do we now possess a unifying principle, applicable to all the disparate movements in education? Does the activity principle qualify as solvent? Does the activity school include all other movements? Does the activity school accept from each movement that which is useful and vital and make it its own?

**B. THE ACTIVITY SCHOOL AND THE MOVEMENT FOR GREATER
FREEDOM FOR THE TEACHER**

We have proposed for the activity school the slogan "Through self-activity to independence!" This sums up the activity program for the teacher as well as for the pupil. For how can the teacher bring his pupils to independence if he himself has not achieved it? "Who can believe," says Weber,¹ "that fettered, frightened, suspicious teachers can train a generation to the uses of independence?" Rules and regulations are necessary, but they may not become strait-jackets to crush the teacher's initiative, nor may the opinion be allowed to get about that the observation of rules and regulations, literally and without exceptions, is the purpose and the goal. Such an attitude characterizes inefficient systems of education, in which poverty of educational leadership and accomplishment is covered up by vigorous observation of rules and forms. The true educational leader understands the paradox: "He rules best who rules least."

Freedom and independence for the teacher are essential not only to the objectives of the special movement in education which advocates these ends, but equally so for the activity program. Heretofore the special teacher in the higher schools was appreciated according to the depth of his knowledge in his special field, and the teacher in the lower schools according to the many-sidedness of his interests. The activity school makes these same demands of the teacher but adds others as well. Besides knowledge, the teacher must have the ability to make the knowledge vital and alive. That involves a new concept of education; education is no longer a process of transferring completed masses of "wisdom" from teacher to pupil, but has become a process in which the pupil seeks and finds knowledge for himself, in which he solves his own problems. A teacher is no longer a person possessing a certain number of knowledges and skills, duly attested by a diploma from

a pedagogical institution or a licensing board, but is one who, because of his entire personality, can pre-live for the pupil what the pupil must live for himself, can pre-experience the experiences of the child. The experiences are generically the same, yet individually different according to the individual differences in the personality of the pupil. The activity school sets a new ideal for the teacher — a high and noble ideal; and though it can never be realized in its entirety, it fires the imagination and the will. "You shall value growing and becoming, for completion is, for the teacher, the beginning of death."²

C. THE ACTIVITY SCHOOL AND THE MOVEMENT FOR NATURALISM IN EDUCATION

While naturalism in education, as we have seen, has not been able to help in setting the goal for education, yet its methodology has been an eternally fruitful source of suggestion, and no form of education can succeed without taking into account the naturalistic factors. The activity school is in agreement with the naturalistic movement in education in many ways. It places the child in intimate contact with nature; through its advocacy of the principle of differentiation of instruction according to differences in environment it fosters the study of the home not only as the subject matter of the undifferentiated course in the primary grades, but also as a principle of method; it advocates rationalistic learning through excursions and personal observations, and emphasizes the experiential side of learning by stressing acquisition of knowledge through the senses; it advocates gardening, farming and other forms of agricultural activity through which even the city child is given opportunity for direct contact with nature.

But this is not all. Activity education, like naturalism, places stress upon the value of bodily training. In this regard the activity school advocates the development of all parts of the body; it makes use of athletics, games and sports; it values agriculture not only because it brings the

child into close contact with nature, but also for its beneficent effect upon bodily health; it approves of conducting classes in the open air; it alternates physical and mental work, to the mutual benefit of both mind and body; it condemns the traditional educational plan in which long periods of physical inactivity neglect the needs of the body for frequent physical movement; it emphasizes the importance of bodily health in relation to such problems as length of time of instruction, hour of instruction, arrangement of subjects, broken or unbroken session, recesses, homework, etc.

Indeed there is hardly an aspect of methodology in which team-work between naturalism and activity education is not possible. The conclusion therefore seems warranted that activity education has accepted the "vital and useful" in the naturalistic program.

D. THE ACTIVITY SCHOOL AND THE MOVEMENT FOR EXPERIMENTAL EDUCATION

Pedagogical naturalism and activity education have joined hands in advocating a natural developmental method in instruction. But this idea is likewise central in the educational philosophy of the educational experimentalists, and it is therefore no surprise to find that the relations between experimental and activity education are extremely cordial. Indeed, a study of these relations records no points of disagreement, but must confine itself to a classification of points of agreement according to two sets of borrowings—those made by the activity school from experimental education, and, conversely, those made by experimental education from the activity school.

1. *What the Activity School has Accepted from Experimental Education*

The activity school, in its concern for a developmental method, faces the problem of determining what activities are in conformity with the natural development of the

child, and in what order these activities should be taken up. To solve this problem the activity school has turned to the experimentalists and accepted their conclusions. Similarly the activity school has taken over other results obtained by the experimentalists in related fields of research. To mention but a few of these: determination of the periods of greatest mental and physical growth; determination of periods for development of specific traits, attitudes and aptitudes; determination of types of individual differences found in pupils, etc. When experimental pedagogy attempts to solve these and similar problems, such as the problem of the nature of mental activity, it enters the very field of the activity school, and its findings are welcome information for the latter.

2. *How the Activity School Repays Its Debt*

But the activity school pays its debt to experimental pedagogy in many ways. It develops new teaching techniques, and re-evaluates old ones—e.g., in the case of drawing,³ in which the methodology developed by the activity school for geographical drawing affects the pedagogy of drawing generally. The activity school also furthers experimentation in the field of the emotions, for it has much material—empirical, statistical and didactic—for study in this field. Of greatest importance to experimental education is the contribution which the activity school makes in the development of its new methodology, especially in logical heuristics. Here the activity school presents the genetic viewpoint in the arrangement of curricular material into a course of study, not only in the field of geography, as was shown in Chapter VII, but in all fields, for the genetic principle is applicable to every subject of the curriculum either in its rationalistic form (as in geography) or in its scientific form (as in chemistry). Of course, from the standpoint of the activity school, this is not enough; the mere fact that subject matter is arranged in a course of study according to the genetic principle is

not in itself a guarantee of self-activity in the pupils. On the other hand, such arrangement is highly favorable to pupil self-activity, because, through the inductive method, plenty of opportunity for observation, generalization and verification can be given when the matter of instruction is genetically arranged. These three steps—observation, generalization and verification—are, as we have seen, basic in logical heuristics. Experimental education has examined these steps, tested their pedagogic value, and supports the activity school in its high estimate of their efficaciousness. So also the activity school is receiving the endorsement of its suggestion for the adoption of the dialogue type of recitation from the results of the investigations into this field by the educational experimentalists.

E. THE ACTIVITY SCHOOL AND INDIVIDUALISM IN EDUCATION

Proceeding now to an examination of the relations of activity pedagogy and individualism in education, we find that there are both points of agreement and points of disagreement. We again observe how vital the influence of the naturalistic school in modern education is when we note that the impulse toward individualization in instruction, with which the activity school agrees, really originated in naturalism.

1. The Points of Agreement

Activity pedagogy and individualism unite in placing emphasis upon the individual needs of the child, but the former regards this as a point of departure, while the latter carries it out through the entire educative process. As the success of the activity school depends upon pupil self-activity, it will be readily seen that in the activity school individualism in pedagogy has received a powerful ally. The activity school develops the body and mind through individual work, and uses all the powers and capacities of the child, not only partially, but with the intention of developing them to their highest degree. In this attempt it

adapts its method to the individual peculiarities of the pupil; it classifies the pupil into various categories of mental types and fits the instruction to the type, not the type to the instruction. Indeed, it is not too much to say that the activity school has adopted from the movement for individualization of instruction everything that is possible of application in the modern school situation.

2. *Points of Difference*

But the activity school parts company with pedagogical individualism when the latter sets up as the logical goal for all education the development of personality, as it does in that branch of individualism which is known as personality education. The activity school finds the goal of personality too vague and unstable, and sticks to its constant aim—the ideal man.

For the same reason the activity school cannot subscribe to other extreme positions which individualization in instruction is so prone to take. One of these is the so-called "Free School." It is perfectly true, as activity pedagogy abundantly realizes, that the child has educational needs as a child, and that education should not be exclusively arranged according to the conveniences of the adult world. That is why the activity school insists upon pupil self-activity. But self-activity is not to be confused with self-development. If self-development means auto-development, without direction, influence or training from outside the child himself, then the activity school must part company with the "free" or "child-centered" school. Only the pedagogue who doesn't understand the nature of the child can imagine that the child's nature includes an instinctive development toward a worthy personality ideal, and that "keeping hands off" is the quintessence of pedagogical wisdom. The child might just as easily develop in a bad direction as in a good one if left to himself, for psychology plainly shows that the direction of the child's development is at the mercy of suggestions which reach

him.⁴ Should the suggestions be good, the path of development is good; unfortunately, the reverse is equally true. The activity school, therefore, is not prepared to discard all forms of restraint, though it freely admits that restraint and punishment should be the exception, not the rule. The activity school advocates practicing the good as more powerful in establishing lasting results than suppressing the bad.

Another extreme of individualism in education with which the activity school disagrees is the special form which has become known as esthetic education. Esthetic education and activity education agree in advocating pupil self-activity; but the former has raised the esthetic principle to such heights of importance that it has usurped the place of the chief aim of education. To the extent that esthetic education strengthens and emphasizes the active element in receptivity, to the extent that through true, active appreciation it raises the appreciative level in the pupils, it finds an ally in activity education. But when it sets up its other goal, the production of art products by all the pupils, the activity school declines to enter on this impossible quest. Where there is native talent, the activity school will give it opportunity for expression, but it cannot undertake to create talent where it doesn't exist.

F. THE ACTIVITY SCHOOL AND MORAL EDUCATION

At the point where the activity school parts company with the form of individualism known as the "Free School" it clasps hands with moral or religious education. Moral education places emphasis upon the training of the third category of mental phenomena—that of interest-will-emotion. But activity education does not confine itself exclusively to this category of the mind, for it is equally interested in the categories of ideation and judgment, and adds thereto its concern over the physical welfare of the child. So although it finds itself in agreement with moral and religious education so far as they go, it reserves for

itself the right of going further, and claims that its goal, the ideal man, is a higher and broader goal than that of the virtuous man. It is interesting to note, however, that religion gives us the picture of the ideal toward which activity pedagogy is striving — the perfect Son of Man, who is also the Son of God.

G. THE ACTIVITY SCHOOL AND SOCIAL EDUCATION

The activity school is in general agreement with the aims of social education. We have just noted the connection between activity education and moral education, which, insofar as its object is character development, may be regarded as a form of social education. Another indirect connection of activity pedagogy with social education lies in the field of curative education, which concerns itself with the education of the mentally, physically or morally unfortunate. Such education is usually given in special institutions which have the difficult problem of substituting something warm, vital and real for what they cannot, of necessity, give — parental love. These institutions have turned to activity pedagogy for their method and have found, through experience, that pupil self-activity in worth while pedagogical work is the best surrogate for the father and mother.

But activity pedagogy is also directly related to social education. Social pedagogy aims at an educational system through which society is to be renewed, restored and strengthened, by the assimilation of younger generations trained to social living as the older generations pass on. It is the duty of the school to fit the younger generation for this purpose, and, as our society is largely industrial, and as the economic factor is of such great importance, social education insists that every pupil should be given some vocational training in order that he may be enabled to take his place as a useful member of society through his ability to earn his own living. With this general point of view the activity school is in accord. But it interprets

vocational training broadly, instead of narrowly, and would therefore give training in "head, hand and heart"—not just one or the other. Furthermore, it claims that citizenship can best be inculcated, not through artificial self-government schemes, but through daily living in a real community. It proposes, therefore, the community of work and living as the best preparation for future social life, and organizes the instruction in such ways that these communal groups will arise spontaneously from the nature of the pupil and the circumstances of the project upon which he is engaged.

H. THE ACTIVITY SCHOOL AND THE TRADITIONAL "LEARNING" SCHOOL

While we have noted that there is no irreconcilable conflict between the activity school and the older school, it nevertheless is true that the activity school proposes certain modifications in organization and procedures. None of these suggestions for change are made with any other purpose than to make possible the functioning of the basic principle of pupil self-activity which lies at the root of activity pedagogy. Furthermore, the modifications suggested are modifications, not "Copernican revolutions," and the transmutation of the "learning" schools into activity schools can therefore be a peaceful and gradual process.

With regard to the changes in organization of the educational system as a whole, it may be noted that many of the changes advocated as a result of the emergence of activity pedagogy have already been made, or, at least, begun. The activity school believes in the principle of instructional variation in accordance with environmental differences in needs and materials. Hence, the activity school approves the movement for segregation of, and special education for the physically, mentally or morally handicapped. It also endorses the movement which has resulted in creating special types of high schools, vocational schools and continuation schools. It recommends

that on the junior high school level greater opportunity for individualization be given by offering more types of shop courses and by stressing the guidance program. In fact, the guidance work should be begun before the junior high school is reached, and continued throughout the senior high school course.

These organizational changes have already been made or are definitely in process of being effected. But activity education would go further in its application of the principle of *Differentiation*. Not only would this principle make for differentiation between city and country schools, but the activity pedagogue would have schools vary from district to district even within the same city system. Each school becomes a unit-community for itself, and its educational activity is determined by special community needs and environmental opportunities. Of course, the variation between schools would not be so great on the elementary level, because the elementary school is so largely concerned with basic skills, knowledges and attitudes, common to all environments. But as we advance beyond the elementary school, the principle of *Differentiation* would make for greater and greater diversification between schools on the same level. Nor should we forget that sex is another factor making for differentiation; where possible pupils should be segregated according to sex in separate buildings on the junior and senior high school level, so that a wide range of manual training courses might be offered to both boys and girls. On the other hand, if the registration in a given junior high school is large enough to warrant expenditures for an adequate number of shops for each of the sexes, segregation may be unwise. There are social values in normal contacts between the sexes which would be lost in an artificial environment of segregation. The practical educator must balance the need of adequate shop facilities against the need of normal contact between boys and girls of adolescent age.

With regard to procedural changes necessary to metamorphose the traditional "learning" school into the new activity school, these have already been summarized in the three chapters, VI, VII, and VIII, on the heuristic method of the activity program. The adoption of this method would require no structural or organizational changes whatever. But it would involve new teaching techniques, which mean either new teachers, or teachers who will re-new themselves. Hence every proposal for the adoption of the activity program must always include a plea for a new type of teacher training institution, either as a separate institution, or as a part of the offering of a university in which prospective teachers can be trained, and to which present teachers may go for in-service training.

I. CONCLUSION: THE ACTIVITY SCHOOL AS GENERAL EDUCATION

With all this differentiation in organization which the adoption of activity education will entail, it is interesting to note that an inner unity will be established through the application of the activity principle to all schools and on all levels of instruction. There are factors making for unity in our present traditional schools; for instance, our common language, our history and traditions, and our literature. But the new activity principle, uniting all the subjects of the curriculum, through a common methodology, into a closely knit whole, will be a powerful ally for the unifying factors of the present school. The activity school will make for outer diversification, with many kinds of schools, curricula, forms of activity; but above all it will make for an inner spiritual unity, welding the pupils into a social unit, which works upon a common problem, in a life situation. The activity school, no matter what its outward form, will always be characterized by unity of purpose, unity of end goal, and unity of method.

This unified educational institution, the activity school, is the only educational form which can combine the cultural currents of our times effectively. The activity school supports the efforts of all educational reform movements to the extent that their aims are useful and vital; the activity school coordinates these movements, removes conflicting tendencies, and sets a goal which is acceptable to each because it includes and transcends the lesser goals of the special movement. "Through self-activity to independence!" With this slogan the activity school will establish itself as the educational institution of our times. Modern pedagogy can be no other than activity pedagogy.

CHAPTER X

AN APPRAISAL OF DEWEY'S CONTRIBUTIONS TO THE ACTIVITY SCHOOL

PART I: THE NATURE, UNDERLYING PHILOSOPHY, AND AIM OF EDUCATION

As we transfer our attention from the European to the American educational scene, we note as a salient feature of the latter the powerful and constantly growing influence which John Dewey has been exerting upon American education for the past forty years. Reform in education in America, instead of taking the form of a plurality of educational movements, as in Europe, each movement advocating a particular type of reform in one or another direction, has been predominantly in the single direction of "progressive education." There is no exact definition of progressive education, for the term has been applied to as many kinds of pedagogical procedures as have been suggested by different educational followers of Dewey.¹ A working definition of progressive education, which would not be far from the truth, is, therefore, "the form of education which is based upon John Dewey's educational doctrines." At present, progressive education in the United States is largely preoccupied with activity education, but, as Dewey's educational doctrines have been variously applied and interpreted by different American educators, there is little agreement as to what an activity type of education really is.² In contrast, the activity school as we have described it, is a fairly clear-cut body of theory and practice. It remains for the educational leaders of America in the first place, and the lay citizenry in the ultimate, to decide whether or not this type of activity school is wholly or in part suitable to American educational and social conditions. To enable educators and the

public to decide this question, we have, in this and the next chapter, made summary statements of John Dewey's educational doctrines and attempted to appraise them in the light of the educational philosophy and practice we have urged upon our readers in the foregoing description of the activity school. It will be seen that with most of Dewey's proposals we are in hearty agreement; where we disagree we shall indicate the reasons for our dissent. We assume that the American educator is familiar with Dewey's educational writings and therefore, for the convenience of the reader, we shall follow Dewey's analysis of the general problem of education as found in his longest and most influential educational book, *Democracy and Education*.

A. THE NATURE OF EDUCATION

Dewey begins the major exposition of his educational doctrine, *Democracy and Education*, not, as one might expect, with a discussion of the philosophical basis for education but with an examination of the nature of education. This approach to the problem of education is significant, because it indicates his belief that education is a natural process* in little need of philosophic justification. His answer to the question, what is the nature of education, is fourfold.

1. *Education as Necessity of Life*

Life is a self-renewing process; the individual dies but life itself goes on. However, in the case of mankind, life is not merely a biologic but also a social process, and education is the means whereby life renews itself on the social plane. Education, therefore, is a natural necessity of life for without it the race would perish.† Furthermore, the

* "What nutrition and reproduction are to physiological life, education is to social life." John Dewey: *Democracy and Education*, New York, 1917, The Macmillan Co., p. 434. This title will hereafter be abbreviated *D&E*. All quotations by permission of The Macmillan Co.

† "Education, in its broadest sense, is the means of this social continuity of life." *D&E*, p. 11.

more civilization advances, the greater becomes the gap between infant and adult, which education alone can span. The educative process, in the final analysis, is a process of communication,‡—but as social life “may fairly be said to exist in . . . communication,”³ “the very process of living together educates.”⁴ With advancing civilization the educational process becomes more complicated, the need for formal education becomes greater, the place of education is more and more made a separate institution called the school, and the consequent danger that “formal education . . . becomes remote and dead, abstract and bookish”⁵ increases.

While much of the material from Dewey which we have thus far summarized would be acceptable by almost everybody because it is so largely historical and factual, there are some viewpoints expressed which would occasion controversy. Dewey stresses the fact that education is a natural process, in little need of justification by philosophy, psychology, ethics, or anything else. Education is its own excuse for being; it arises out of the state of life itself, it is self-contained. With this radical viewpoint we can hardly agree. Education, we believe, is distinctly a human process, which must be studied historically, critically, and with a view to discovering what in the past has been achieved, how much can be taken over, what must be modified, and what parts of the field of education remain still to be explored. Dewey expressly admits that, as civilization advances, the gap between the adult and the child becomes greater. Being keenly aware of this truth we focus our attention upon the human institution of education which society uses to bridge this gap. Now the central fact of the social institution which we call education is the communication between an adult mind and an immature mind, whereby and wherein the latter receives opportunity for and is stimulated to learn. With this state-

‡ “All communication (and hence all genuine social life) is educative.” *D&E*, p. 6.

ment we are in general agreement but there is a difference in point of view. Dewey stresses the fact of *communication*; we feel that it is more significant to note that the communication is *between the adult and the immature*. This difference in emphasis has far-reaching implications.

In the next place, for Dewey, education as a process arises directly out of the social situation, and the process is fixed, or conditioned, by the factors which called it into being. It doesn't matter what "education" was in the past, in different places or at different times; the present situation alone determines what education is. Against this viewpoint, we would stress the interdependence of education and other fields of human thought such as philosophy, psychology, ethics, biology, etc. Education, as we see it, is a historical and synthetic process; it grows as we learn more about it. Dewey says elsewhere that education is growth, meaning that the education of the individual is a growth of the individual. This is, of course, true; but when we say that education is growth we also mean that education, the process, is itself growing and developing, and will continue to grow and develop as a process as the centuries roll on. Dewey makes no reference to the past except to recount what happened, and to reject it; we have examined the past to discover the origins of the educational process and to cull what may be regarded as valid.

Another difference arises out of Dewey's exclusively social attitude. Education is the means whereby life renews itself on the social plane, as Dewey says. We find ourselves in complete agreement with the statement so far as it goes, but would extend it. For Dewey, education has no meaning apart from the social environment, but we believe that education would still be a continuing and valid process for an individual marooned on a desert island. Dewey would agree that education benefits the individual, but that benefit would be possible only insofar as the individual lives and operates in a social situation; the benefit to the individual is, as it were, merely incidental to the

social benefit. We believe, on the other hand, that the individual is fully as important as society. Said in another way, if education is the means whereby the individual is fitted for life in a society, it is equally the means whereby society is explained and presented to the individual.

And this brings us to a fourth distinction, implied in the foregoing. Dewey's social point of view leads him to say that education is *the⁶* means of social continuity of life. Perhaps it is unfair to take Dewey too literally at his word, but, on the other hand, it is safe to assume that Dewey regards education as the chief means of social continuity. While we would not oppose this statement, our support would be rather lukewarm. We think that the emphasis is wrong; education is not to be justified on the ground that it leads to social continuity for, although social continuity is one of its ends and aims, it has other coordinate ends as well. Hence, while education is undoubtedly a powerful socializing force, it is more than that. Dewey is so enthusiastic for socialization through education that the effect of his doctrine appears to be collectivistic. We are by no means individualists in education, but we feel we have described a program of education much nearer to the traditional American philosophy, which, up to recent times at least, has regarded the individual as of prime importance and the state as created to enable the individual to function at his best in "the pursuit of happiness." The picture of Dewey as a collectivist in education will, no doubt, appear startling to many American educators. However, further reasons for the point of view here expressed will develop as we consider more of Dewey's educational doctrines.

2. *Education as Social Function*

Since learning takes place chiefly as a result of the effect of the environment* upon the individual, it becomes the business of society, a social function, to control the en-

* "Environment" (is) something more than surroundings which en-

vironment so as to set up conditions which stimulate the desirable and inhibit the undesirable response. But this must be done by making the pupil a sharer in social activities, else what he learns will make him "trained like an animal rather than educated like a human being."⁷ Education is, therefore, a social function for two important reasons: first because true education can only result from a social situation in which the pupil responds as a partaker and sharer of social activity; and, secondly, because the school, where this education is to take place, is itself a social institution created by society for a specific social end.⁸ The school has three characteristic functions:⁹ to simplify the environment, to eliminate objectionable features,* and to bring about balance in the factors of environment.

With this section of Dewey's thought, we are in complete agreement. Dewey's central idea is that education is a social function, and, on historical grounds, we have reached the same conclusion. Dewey, as a social philosopher, derives education as a social function directly from the nature of society, as we have seen; our interest has been, as teachers, primarily in the process of education—pedagogical activity—and, on historical grounds, we have concluded that this process can best take place in a special social institution, the school. Dewey speaks of the social situation in which the pupil shares social activity; this situation we have called the community of work. Finally, the characteristic functions of the school, as Dewey enumerates them, have all been described as part of the process of activity pedagogy.

3. *Education as Direction*

Dewey realizes that "the native impulses of the young do not agree with the life customs of the group into which compass an individual... (It denotes) specific continuity of the surroundings with his own active tendencies... (It) consists of these conditions that promote or hinder... the *characteristic* activities of a living being." *D&E*, p. 13.

* *D&E*, "Purifying and idealizing the existing social customs," p. 27.

they are born.”¹⁰ Hence, education must be in the direction in which the young are to be trained. This, of course, implies control, but such control should rarely be exerted directly as a command or as physical restraint. It should be indirectly exerted, arising spontaneously either out of the nature of the activity in which the individual is engaged or out of the attitudes and desires of the group of which the individual is a part. Common understanding of the means and ends of action is the essence of social control. Social control is indirect, and either intellectual or emotional; it is not direct or personal. It is intrinsic, not coercive; internal, not external.¹¹ Through social activities, pupils “acquire a social sense of their own powers and of the materials and appliances used.”¹²

With everything that is here said by Dewey, we are in complete accord. But there nevertheless is a difference with regard to the amount and quality of the direction which educators should give to the educational process. Dewey would give very little direction; he implies that the children would choose the right direction with very little direct help from the teacher, from whom a mere hint would suffice. Direction on the part of the teacher is a necessity, as Dewey admits,¹³ but he seems to fear excessive direction as a constant danger. The result is that Dewey, as we shall see shortly, is opposed to the division of subject matter into curricular subjects, but would have activity grow out of preceding activity with as little direction on the part of the teacher as possible. By contrast, we have been at some pains to be quite specific in our statement that the teacher’s duty is to direct. The pupils are to choose the activity under the teacher’s direction; if the teacher is an artist, this direction is not at all apparent even though it is there, for it is the highest type of art which achieves its object without any apparent effort. The difference in the point of view with regard to direction may be stated thus: within a given activity-unit, we agree with Dewey as to the nature of direction, and

the forms of social control that are desirable; but when activity-units are to be chosen, Dewey warns of the danger of excessive direction by the teacher, while we believe that it is the teacher's duty to direct the choice of the pupils into educationally profitable channels, at the same time guarding against teacher clumsiness which makes overt and apparent what should be covert and disguised.

4. *Education as Growth*

Education is growth, and growth implies action and experience by the child.* Growth is forward looking; it is not an end in itself, but occurs only when it opens doors to newer and wider experience, to more growth. "Nothing is so relative to growth as more growth."¹⁴

Growth depends upon two things: plasticity¹⁵ and habit formation.¹⁶ By the former, Dewey means the ability of the pupil to learn from experience; native intelligence is undoubtedly its most essential ingredient.† Habits, which are both causes and results of growth, are of two kinds: physical "habituations," persistent mechanized forms of physical activity; and mental "habits" such as modes of thought, observation or reflection. The progress of education is registered in the human psyche by the formation of useful habituations and habits which will enable the learner to learn more—that is, to grow further. This is one of the most characteristic of Dewey's educational ideas; he puts it succinctly: "The criterion of the value of school education is the extent in which it creates a desire for continued growth and supplies means for making the desire effective in fact."¹⁷

With the foregoing admirable analysis, we believe, all

* "Growth is not something done to them; it is something they (the pupils) do." *D&E*, p. 50.

† "Innate power is determined largely by psychic capacity to meet new situations clearly and easily." *Progressive Journal of Education*, Dec. 1908, p. 1. On the other hand, "intelligence . . . is developed out of the struggles of organic beings to secure a successful exercise of their functions"; this would seem to indicate that intelligence is not fixed but may "develop."

educators will agree as far as it goes. But we think that practical pedagogues will differ with Dewey in regard to some of the implications. We agree, for instance, that education is growth and that growth leads to more growth; but we believe that this "more growth" is possible only as a planned and logical outcome of the original growth. Dewey, by way of contrast, seems to think of the "more growth" coming more or less by itself because the next unit-activity would arise spontaneously. But holding, as we do, a belief in teacher responsibility for guiding the pupil, we feel the "more growth" has to be planned for. For the same reason Dewey relies more on opportunistic teaching than we have in our discussion of the activity school, where we indicated that while opportunistic teaching is often valuable, it cannot be the main reliance of the teacher.

We believe that Dewey's point of view is that of the social philosopher and that he has concerned himself less with practical teaching matters than the practicing pedagogue would find desirable. For instance when Dewey points out that growth depends upon plasticity and native intelligence, the educator is not satisfied to leave it at that. As a teacher, he must do something about native intelligence, so that each individual may be enabled to grow as much as possible. We propose, therefore, to offset native intelligence by means of individualized teaching, by dividing pupils into sensory, memory, imagination and other types, and by varying the teaching process for each type. Furthermore, as educators we make no point of the difference between Dewey's "habits" and "habituations," for, though one is mental and the other is physical, they are both acquired as a result of the learning process and both are applied to further pedagogical activity. Dewey's appraisals of manual activities in *School and Society* and *The Child and the Curriculum* support our statement that while manual activities lead to "technical skills" (Dewey's "habituations") such subjects are not properly taught if

manual or technical skills are their only outcomes. Manual activity must result in "cultural values" (Dewey's "habits") in addition to technical skill.

5. *Summary*

According to Dewey, therefore, education is a social life necessity taking the form of intelligently directed activity to insure proper individual growth for social continuity.

Dewey has approached the problem of education as a philosopher, he has examined the nature of education on speculative grounds and he has arrived at a definition of the nature of education. In contrast to this philosophical approach this study has taken education for granted and conceived the present problem as the discovery and demonstration of the best means for achieving education. Therefore we have not tried to define education as such but have defined activity pedagogy assuming that education is a process of putting together cultural values, not merely by piling mass on mass, but by arranging these values into a unified whole. We have regarded as cultural values all enrichments of idealism, all correct judgment formation, every rightful expression of the will-interest complex—in short, every enlargement of the spirit and every increase in the efficiency and health of the body.

But if we have not specifically defined education, we have defined activity education. Activity education is that tendency or direction in educational movements which, as a form of universal educational philosophy, accepts the activity principle as the basic principle for establishing aim and method in instruction and training. We have defined the activity principle as any purposeful application of human effort through which cultural values, and incidentally often economic values as well, are created. Such application of effort is genetically a psychophysical process; but frequently one or other of these two component elements overshadows the other. Consequently,

we sometimes speak of bodily or physical activity as opposed to mental activity. But from the pedagogic standpoint, this distinction is not important; what is important is that pedagogical activity is the activity of the ego upon itself for its own purposes or benefits. This is called self-activity.

Although we have not addressed ourselves to the same problem that engages Dewey's attention in the section of his writings which we have just abstracted, there are overlapping matters in which differences in points of view become apparent. Dewey describes education as a continuous process divorced from its end; we think of education in the usual and traditional two ways—as a *process* of becoming, and as an *end product* of that process. Dewey has radically altered the concept of education; it has not been our problem, as we conceived it, to define education as such, but merely to point out how the process of education can be made more efficient. For Dewey education has no meaning outside of its social context; we believe that through the principle of self-activity self-education is possible even in isolation. Dewey's approach to education is philosophical and especially sociological; our approach has been that of the average schoolman seeking improved methods for educating his charges. Dewey describes education in general terms; we have tried to be as specific as possible in our description of the activity school.

B. THE PHILOSOPHIC BASIS FOR EDUCATION

When we examine the last three chapters of "*Democracy and Education*,"¹⁸ we see that the reason for not starting the exposition of his pedagogical ideas in the usual way—that is, by laying down a fundamental philosophic basis for pedagogical suggestions—lies in the nature of Dewey's conception of the relation between philosophy and education. Philosophy, for Dewey, does not consist of a body of general propositions whose truth is to be accepted, and which is therefore capable of being the basis and sanction

for an educational system; on the contrary, it is science—not philosophy, which must be consulted if we wish to establish a foundation for education. The facts of science, especially the social facts, pose the problem for us: What are we going to do about them? It is for philosophy and education to answer. The question is presented to us by the facts of science; the question itself is philosophic; the answer must take the form of an educational system.¹⁹

Dewey's pragmatic philosophy is the basis of his educational views, though he hardly mentions the word in his educational writings. Pragmatism is defined²⁰ as "a philosophic method, and its corresponding doctrine, which holds that the practical effects or way that they 'work' are the sole available criteria for the truth of human cognitions, and the value of human moral and religious ideals." And again, it is "a metaphysical theory that reality is for man what he makes it to be in the service of so-called practical ends." Dewey discusses some of the educational implications of this philosophical method—for pragmatism is essentially a method rather than a doctrine—in the two final chapters of "*Democracy and Education*." But first he takes up the question of the relation of education to philosophy.

Brief as this summary introduction to Dewey's philosophical position has been, it nevertheless presents several points of view which require comment. The activity school, as we have seen, is the result of slow growth as an organism out of the educational practices of a host of educational leaders. These men were primarily pedagogues who approached their problem from the practical side and whose concern with philosophy was that of educators who, while they retain education as the focal point of their interest, nevertheless base their educational systems, in part at least, upon philosophic grounds. They did not, like Dewey, regard education as the implement of their philosophy; they took education for granted, but found sanctions for the process of education in all the philosophic

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systems current in their times. But there is a vast difference between basing education on a philosophy which is regarded merely as a method, as Dewey regards it, and basing it upon any one of several philosophies each of which defines itself not as method but as a body of truth. It is true that Dewey says that as philosophy is only a method, education cannot be based upon it; but the distinction between regarding education as an implement of a philosophy and basing education upon philosophy is a distinction without a practical difference.

Dewey looks to science for the facts of our world and emphasizes the importance of the social facts. The activity school agrees with Dewey that the facts of science are important and that the social facts must be taken into consideration, but it does not look to science exclusively for pertinent facts on which to base educational procedures—it consults ethics, religion, psychology, e.g.—nor does it regard social facts as the only overwhelmingly important ones.

Most of the founders of the activity school have been voluntarists. Voluntarism has been described²¹ as "the theory which holds that Will is the ultimate principle both in experience and development of the individual, and in the constitution and evolution of the universe. In the former (or psychological) variety of the theory . . . the volitional or active aspect of human personality is made more prominent and more fundamental; although it is found necessary to conceive of this aspect as including ideating will—a concession to Intellectualism, to which, on the whole, Voluntarism is opposed. With Fichte, the self-determining and self-relationing activity of the ego, both finite and absolute, was understood as the ultimate principle of all reality." Of course, as educators, the founders of the activity school never explicitly defended this philosophical position. But many pay tribute to Brentano²² and base their education systems on Brentano's psychology and philosophy. Furthermore, the close connection be-

tween the activity school and Fichte is clearly brought out by Burger himself when he describes self-activity as "the activity of the ego, upon the ego for the purposes of the ego."²³

1. *Nature of Philosophy*

"Philosophy has generally been defined in ways which imply a certain totality, generality and ultimateness of both subject matter and method."²⁴ Dewey rejects totality of subject matter, but accepts the burden of totality if it "does not mean the hopeless task of quantitative summation. [Totality] means rather the consistency of mode of response in reference to the plurality of events which occur."²⁵ And again, "totality means continuity—the carrying on of a former habit of action with the readaptation necessary to keep it alive and growing."²⁶ In other words, philosophy is the determination of appropriate action; it is method; it is habitual attitude.

Now education has also been defined as a process of forming dispositions, and hence it follows that "philosophy may be defined as the general theory of education."²⁷ Education and philosophy are therefore one; the former is the practical, the latter the theoretical side of the same human and social activity. Education is not based upon, or derived from philosophy, but education and philosophy are in agreement with one another. To the pragmatist, philosophy should go over into action in the forms of "public agitation, propaganda, legislative and administrative action"²⁸ but, as such methods of action are directed chiefly at adults whose minds and ways of life are largely set, they are less likely of success than education which has a "fairer and freer field of operation."²⁹ Education, from this point of view, is seen to be closely related to propaganda, public agitation and legislative and administrative action.

Again, philosophy has the double task of criticizing the existing state of the world³⁰ and of "interpreting the re-

sults of specialized science in their bearing on future social endeavor. . . [It can do this only through education, for] education is the laboratory in which philosophic distinctions become concrete and are tested.”³¹ This means that both philosophy and education must be kept in a fluid state subject to constant changes, alterations and reconstructions. For as society changes, as social ideals and aims evolve out of older forms, so philosophy, which has the duty of critically evaluating the processes of society, must change also; and similarly education, as the laboratory in which social ideals are put to the test and worked out in practice, must change its methods, its aims, its end. The present need of education, according to Dewey, is to transform itself into new forms through which social changes, approved by philosophy, may be brought about. And the function of philosophy is to serve as the theory for a system of education whose purpose is to bring about desirable social changes.³²

We thus see that Dewey has a very definite conception of the nature of philosophy, its task, and the possibility of its usefulness in our present society. So long as Dewey confines himself to philosophy in his discussion there can be no disagreement with the activity school for the simple reason that activity pedagogues do not express themselves on the matter. But when Dewey envisages an educational system, activated and motivated by a philosophical system, and aimed at the conscious reformation of society, the activity school parts company with him. It realizes that the hope of a better society is better education to make better men, but it does not think of education as charged with the duty of reconstructing society as Dewey does. For Dewey, this is the heart and purpose of education; for pedagogy a reconstructed and superior society would be an incidental, though very welcome, product of a better system of education. A collectivistic view of education as a form of “public agitation, propaganda, legislative or administrative action” is far from the average educator’s

thought, and, although he would be the first to admit that the structure of society conditions the nature of education, he would not conclude from this premise that education therefore is the process through which needed social transformation takes place. In short, to make the contrast clear, Dewey thinks of education as the means of reconstructing society ; the activity school thinks of education as a social institution which is conditioned by the society for which it is intended.

2. The Theory of Knowledge

Dewey begins his discussion of the theory of knowledge by distinguishing between the pragmatic theory of knowledge and all others. The difference lies in the fact that only pragmatism assumes continuity as opposed to the dualisms implied in other philosophical systems. Dewey specifically condemns the following dualisms as fruitful of much human error especially in education :³³ empirical *vs.* rational knowledge ; knowledge as an external, objective thing to be mastered *vs.* knowing as an internal, subjective process ; activity *vs.* passivity in knowing ; intellect *vs.* emotions ; knowing *vs.* doing.

a. Contrast between Dewey and activity pedagogy

Remembering that activity pedagogy does not concern itself with philosophical questions as such, we nevertheless note that these dualisms, condemned by Dewey, are all implicitly admitted by the activity school. Hence we have found it necessary, e.g., to distinguish between empirical and rational knowledge, and to propose a separate methodology, namely empirical and logical heuristics, for mastery of the two types of knowledge respectively. So we also regard knowledge and knowing as dual—the former a *thing*, a subject matter ; the latter a *process*, a method of acquiring the subject matter. We have also recognized the difference between activity and passivity in learning and knowing ; indeed our entire point of view may be sum-

marized by saying that we believe the former a good way, the latter a poor way of acquiring subject matter. Similarly, the distinction, which activity pedagogy recognizes and Dewey denies, between intellect and emotions finds expression in the specialized methodology which the former proposes for cultivating the intellect on the one hand and training the emotions and will on the other. Finally, that there is a distinction between some forms of knowing and doing we must admit when we realize that not every form of knowledge goes over into overt action. In this detail Lay agrees with Dewey — erroneously, we believe.

b. Learning and knowledge

Dewey uses the term "knowing" as though it were the equivalent of learning; information is knowledge, only when it has been acquired as a result of purposive, reflective inquiry. "Knowledge does not mean awareness or statement of fact. Even though a person may be able to recall thousands of actual events and state their manifold relations to one another with complete accuracy, he cannot be said to know them in Dewey's sense, unless he had some purposive part in the production of the original knowledge of them. The mere accumulation of information, e.g., by reading accounts in histories, is not a case of knowing. Dewey is not aware of the wide divergence between his use of the term 'knowledge' and its traditional and current usage."³⁴ But Dewey is perfectly explicit on this point. He condemns all other schools of philosophical thought on the ground that they regard knowledge as a body of truth existing in the mind irrespective of whether or not such truth is utilized in the solving of further problems.³⁵ He then contrasts this concept of the nature of knowledge with the pragmatic view which holds that information is not knowledge unless it is in continuous use, modifying our environment and enabling us to solve our problems intelligently.³⁶ In other words truth is premised on the principle that only such ideas as work in actual practice

can be regarded as intrinsically valid, and that the main criterion for evaluating its nature is the applicability of its functioning power in a life situation. The pragmatist bluntly states that an idea is true only when it works.

From the foregoing we see that Dewey's definition of knowledge is both broader and narrower than the traditional concept of knowledge on which the activity school is based. On the one hand, Dewey would not include as knowledge factual information for which the possessor has no environmental use; on the other hand, he would include such things as habits of orderliness, skill in thinking, etc. which other educators don't think of as knowledge but as cultural values, the results of knowledge. But an even greater distinction between Dewey and all other educators is that Dewey thinks of knowledge or truth as relative; it works or it doesn't, and if it doesn't, it isn't truth. Most educators think of truth as having objective reality as an attribute; in other words truth exists—or is true—whether man has the ingenuity to use it for his purposes or not. From our point of view, Dewey's error of identifying learning and knowledge with one another, leads to and includes another error which is important for the practical teacher. By failing to distinguish between the process, learning, and its end product, knowledge, Dewey makes it impossible on philosophic grounds properly to distinguish between two processes—learning and education. Learning is the process in which the pupil is engaged; no one can do it for him, for the acquisition of knowledge is a personal thing insofar as the knowledge can come only as a result of the learning process which goes on in the mind of the pupil as a result of outside stimulus of some sort or another. Because this is so—that each pupil must learn for himself—the activity school stimulates pupil self-activity. On the other hand, the learning process of the pupil should not be confused with the educational process of society. The manipulation of environmental factors is a social process, which in most school situations is admin-

istered and executed by the teacher, by which society, "the mature mind," brings about environmental situations which enable the pupil's learning process to function under most favorable circumstances. The teacher's part — the teacher being the agent of society — may be compared to the process of leading the horse to water; the pupil's part, learning, is comparable to the act of drinking, which only the horse can do for himself.

c. Sensationalism and rationalism

Finally Dewey condemns both sensationalism and rationalism, the former for its emphasis on the particular, the latter for its corresponding emphasis on the general. According to Dewey, these two errors are only aspects of a single mistake — the failure to realize that both the specific (i.e. the sensory stimulus) and the general (i.e. thought or judgment) are of use to us only when they function to tie the past to the future in a continuity of existence.³⁷ . . On the other hand, while the activity school does not criticize the sensationalist or rationalist school from the philosophical standpoint, as Dewey does, it agrees with Dewey in thinking of experience as a continuous process and in regarding the products of sensation and rationalization — that is, sense perceptions and thought — as useful educationally only insofar as they are utilized in experiential activity for the creation of new knowledge. Of course, as we have just seen, we mean a different thing by this last term than Dewey does.

d. Summary

This conception of the nature of knowledge Dewey applies to education, as we have just seen, and justifies as a special need of democracy. He thinks that as the essence of democracy is free intercourse between individuals and social continuity during changes in social structure, democracy must develop a theory of knowledge through which knowledge becomes the *method* whereby successive experi-

ences become meaningful and directional. Science, especially the physical and biological sciences, shows us how knowledge can be used as an instrument for gaining further knowledge. The educational equivalent of the experimental method of science is found in welding into a single process the acquisition of knowledge and the activities or occupations of communal life.³⁸ It is interesting to note that though they cannot subscribe to Dewey's definition of the nature of knowledge, activity pedagogues agree with him in thinking that knowledge should be acquired in school through activities or occupations carried on in social groups.

3. *Theory of Morals*

Just as an unnecessary and vicious dualism has an injurious effect upon our theory of knowledge, so a similar dualism, according to Dewey, bedevils educators and frustrates them in their attempt to achieve the final goal of education — character. This is the dualism which divides moral activity into two opposed factors: the inner *vs.* the outer; the motive *vs.* the act; the spiritual *vs.* the physical. "Different schools identify morality with either the inner state of the mind or the outer act and results, each in separation from the other."³⁹ Dewey is aware that there is an inner and an outer aspect to conduct, but he insists that these aspects together constitute a unity,* and that their separation has disastrous consequences. If you emphasize the inner at the expense of the outer you get a flabby morality in which everything is forgiven because the motive was good; conversely, an emphasis upon the outer at the expense of the inner leads to outward conformity to "codes of honor," etc. divorced from all inner meaning. The school has been attempting to bridge the gap; hence we insist upon good intentions, and, at the same time, insist on "doing certain things irrespective of whether the indi-

* "There is not first a purely psychical process, followed abruptly by a radically different physical one. There is one continuous behavior . . ." *D&E*, p. 403.

vidual has any concern . . . in the doing. He must toe the mark . . . obey . . . form useful habits . . . learn self-control.”⁴⁰

Before presenting his own solution of the problem posed for us by the necessity for character development, Dewey clears the ground for his ideas by disposing of the “dualism” inherent in the antithesis often set up between “acting from interest” and “acting from principle.” His theory is that interest cannot be separated from self; that when a man acts “from interest,” i.e., basely, he is choosing and developing into that kind of self; conversely, when he acts altruistically he is enlarging his self by including and incorporating newer and wider “interests.” But Dewey is not content merely to *associate* interest and the self; he goes farther and *identifies* interest with self. He argues, quite rightly, that the kind and intensity of a man’s interests are measures of his nature and character—the kind of self he is. When we “take an interest in a thing” we associate ourselves with it; but that does not mean, except in a merely metaphorical sense, that we identify our ego with the object of our *interest*.⁴¹ Hence we ought to take Dewey figuratively rather than literally when he says: “The generous self consciously identifies itself with the full range of relationships implied in its activity . . . [and] readjusts and expands its *past* ideas of itself to take in new consequences as they become perceptible.”⁴²

What is needed educationally is wider, fuller identification of self, not direct indoctrination of moral precepts by verbal instruction. Morals can be inculcated and character formed only on the basis of habitual acts, and, since a widely or fully developed character is one in which there has been a correspondingly wide and full identification of the self with objects and relationships, such character development can take place only in a social situation. But morals and morality must be viewed broadly; they concern themselves not only with those acts which are prescribed or forbidden in a formal decalogue of conduct but include

all our acts whenever they concern themselves with our relations with our fellow-men. Morality is thus viewed as concerned with our actions even when their social or ethical import is not in our consciousness at the time of performance. Morality concerns a man's whole character in all his dealings; to be truly moral is to become the best that one is capable of becoming through association with others. Morality and social living are to all intents and purposes identical with each other, according to Dewey.⁴³

For the school this means that education can only be successful on the moral plane insofar as the methods and materials of instruction are socialized.⁴⁴ This in turn implies that the school itself should be a community of life, a place of give and take, a place of communication and transfer, a place of common experience in pursuit of a common aim. It also implies that the experiences in school should be continuous with those out of school, with interplay and interaction at many points of contact between in-school and out-of-school life. Morality does not consist of virtues cultivated for their own sake, nor of a code of conduct punctiliously observed; it consists of everything that touches the individual and every contact he has in an experience which is continuous throughout his life. Education is thus seen to be coextensive with life; indeed as training in morality, education is life, and life is education. For since education is social and whatever is social is also moral, all the personal outcomes of education are but aspects of a growing ability on the part of the individual to live in a social environment with his fellows. For the individual, therefore, the essence of morality is to live socially.⁴⁵

The contrast between the activity school and Dewey in this field of character training and morality is greater at the theoretical starting points than it is at the end when we examine the specific practical steps which each advocates for inculcating or training the young in moral conduct. Implicit in activity pedagogy is the appeal to religious sanc-

tion for a basis for morality ; this is lacking in Dewey. But whether or not one appeals to the religious sanction, good men everywhere are agreed as to what is virtuous conduct, and so the activity school and Dewey are in agreement as to essentials. Both insist that character and morality are not outward observances nor inner convictions exclusively, but both combined into an indissoluble unity. Both insist that character and morality are habitual attitudes, not "Sunday manners" to be donned and doffed like Sunday clothes. Finally—and of greatest educational importance—both agree that the possibility for training in habitual right living comes from living and working cooperatively in a living or working community. Dewey calls this the "social situation or activity"; the activity school calls it a work community.

While in agreement in essentials there are minor differences which should be noted. The first has been indicated in the foregoing; Dewey approaches the problem philosophically and without appeal to religion, while most educators implicitly accept the religious sanction and include religious instruction among the materials of subject matter. Most of us would never agree with Dewey that to act socially is all of a piece with acting morally, for we know that direct defiance of society and disobedience of the social law may be, in certain situations, the highest type of morality. Dewey's error arises out of the fact that he disregards the possibility that a group, cooperating socially for a desired end, may nevertheless be doing evil in its acts and having an evil end in view. To know whether means or ends are evil, most of us use the touchstones which philosophy, ethics and religion furnish us wherewith to judge the good and the bad.

Dewey's analysis of the dualism between acting "from interest" and acting "on principle" and its resolution into a unity through the identity of interest with self, has no counterpart in activity pedagogy, but, on the other hand, is not explicitly or implicitly contradicted. Lastly, Dewey

seems to disapprove of direct inculcation, whereas the activity school, as we have seen, divides hodegetics, or character training, into negative (inhibitory of the bad) and positive (stimulative of the good), and finds a place for direct inculcation of moral precepts in both parts. The difference is that Dewey would have the pupils discover the moral law and then apply it;⁴⁶ educators generally think that the moral law can often be stated for children and practiced by them, leaving for later experience the discovery of the reasons for the moral law. In either case, the child discovers the moral law eventually, and applies and practices it in life situations until it becomes habitual.

4. *Summary*

Philosophy, according to Dewey, is a method by which we determine what are the appropriate actions which we should take in a given situation; philosophy, according to most of the founders of the activity school, is a body of truth to which we refer and upon which we base our system of education. Dewey holds that the considerations which move philosophy and condition its determination of appropriate action are chiefly social; the activity school holds that they are social in part but not exclusively so, and that the individual in his striving for self-development exerts a great many influences upon such determination of appropriate action. Dewey thinks that since the most effective instrument for putting philosophical generalizations into practice is education, philosophy may be regarded as the theory of education as a deliberately conducted practice; activity pedagogy holds that while education is often effective in changing social conditions, the chief duty of education is not to reconstruct society but to develop the individual in the direction of the ideal man.

Dewey holds that since life consists of action and interaction, knowledge is not something complete in itself but can exist only in relation to actual or contemplated activity. Such activity must be purposive, and knowledge is

true only when it is found to work. Knowledge, therefore, becomes an implement or method by which one experience is made available in giving meaning to other subsequent experiences. The activity school, on the other hand, regards knowledge as having validity or truth whether man has the ingenuity to use it or not. But it agrees with Dewey that knowledge becomes useful to man only when it is instrumental in enabling man to gain newer and wider experiences. Knowledge, in short, is more than an implement, but can be used implementally.

Dewey believes that, while moral conduct concerns the whole character, morality is, in the final analysis, social, because character exists and functions only in a social continuity of life; the activity school, while admitting that many moral problems are social, denies that morality can be identified with social conduct, believing, on the other hand, that morality is based equally upon the individual's relationship not only to his fellowman, but also to himself, and to God. Dewey, therefore, makes no effort to erect a religious sanction for morality; for most educators this sanction is implicit, though religion is not the only basis for morality and character. Dewey thinks of morality as consisting not merely of virtues cultivated or codes of conduct observed, but of everything that touches the individual and every reaction he makes in a social situation; the activity school agrees, except that it would either delete the words "social situation" or else expand their meaning so as to include the individual's relationship to himself and his Creator. Dewey, because of his emphasis on the social aspect of morality, comes to the conclusion that morality can be developed only through social living and a social organization of education. To maintain a capacity for a socialized form of education is the essence of morality. The activity school agrees that *most* forms of morality can be developed best through social living and therefore emphasizes, like Dewey, the social organization of education. On the other hand, since morality means more than

maintaining "a capacity for a socialized form of education" insofar as moral conduct, or character, transcends the social situation, it advocates specific moral training through negative and positive hodegetics.

C. THE PROBLEM OF AIM⁴⁷

Dewey approaches the problem of aim indirectly by first examining certain forms of education whose aim he rejects, then considering what are the purposes of education in a democratic society, and lastly, having determined the criteria of aim, finding in social efficiency the proper aim for general education.

1. *Forms of Education*

a. *Education as preparation*

We have seen that Dewey has described the educative process as a continuous process of growth; he, therefore, rejects completely the form of education which conceives of education as a preparation. Such education, being a preparation for the responsibilities and privileges of adult life, is at variance with the idea that education is life, that children are members of society in full and regular standing. But aside from this, which is fundamental, Dewey finds other reasons for rejecting the idea of education as a preparatory process for full life. Such education "involves loss of impetus"; it puts a premium on "shillyshallying and procrastination";⁴⁸ it makes us content with "a conventional average standard of expectation and requirement"⁴⁹ instead of the best standard that the individual is able to attain; it emphasizes subject matter at expense of individual need; it is based on artificial motives for learning;⁵⁰ finally, growth, regarded as an enlargement of the present, is sacrificed to the idea of growth as a preparation for the future.⁵¹

The activity school is only partly in agreement with this point of view. It shares Dewey's conviction that edu-

tion is life, and that children are members of society in full standing. But it regards education as both living and as preparing for future living. The adult world should make its experiences available to the child, to save him from futile effort in blind alley paths of activity. The activity school thinks of the teacher as one who has the capacity to pre-live the life of the pupil, meaning thereby to guide him into forms of activity—self-activity, chosen by the pupil—which are real, vital, and suitable for life at the pupil's level. It sees that as soon as you admit the idea of guidance on the part of the teacher, education becomes to that extent preparation. Guidance for what? — the answer involves consideration of a future state and hence education must, to some extent at least, be preparatory. On the other hand, it does not think of education as solely or even mainly preparatory, and it agrees with Dewey's indictment of education as preparation if education is to be robbed of its vital, social, contemporaneous significance and regarded as merely preparatory to the adult state.

b. Education as unfolding

According to Dewey, this is an even more dangerous doctrine than the previous one because it professes to be based on the idea of development. He sees a significant difference between the idea of growth in education as he has explained it, and the idea of the unfolding of the latent powers of the pupil in the direction of an established and predetermined goal.⁵² Education as unfolding has the goal of perfection, which is unattainable. Hence, as Dewey points out, this perfectibilian goal, in order to have a present applicability must be translated into a "practical goal," which is simply another way of saying that the teacher determines the goal for the pupil, and the child is molded into the pattern that the adult selects.⁵³

Dewey believes that education as unfolding usually takes one of two forms—the Froebelian or the Hegelian—depending upon what goal the unfolding process is supposed

to have. To speak of unfolding is therefore to deceive one's self, because all the while the nature of the unfolding process is determined by the goal which is set up as an approximation of the ideal. For Froebel, this was the acceptance of concrete facts of experience symbolically, thereby drawing closer to inner spiritual unity with the whole—a highly mystical attitude whose meaning is not clear to the uninitiate. With Hegel, the goal was identification of the self with cultural institutions. This emphasized the social aspect of man but, as Dewey points out, it swallowed up the individual in the Individual.* For if the institution comes first in importance, and if the business of education is to fit the individual for effective life in social institutions, then the rights and importance of the individual must become subordinate to the needs of the institutions of society. Conformity and obedience take the place of personal development and individual freedom.⁵⁴ In other words, we arrive at a philosophic sanction for class distinctions and present social institutions, which means education based on external dictation instead of growth.

It will be seen from the foregoing that Dewey's criticism is not directed against the idea of development of the child's powers as such, but only against the danger that when translated into practical educational process such development of the child's powers always implies the setting of an arbitrary goal and hence the determination of aim, process, curriculum and method *ab initio*. Starting out, therefore, from a liberal acceptance of the right of the child to develop naturally, such education ends up in a strait-jacket in which everything educational is predetermined by the adults who supervise and impose the educational system. Our answer to this has been that we should set the aim so far in advance of possible achievement—the ideal man—that we avoid the danger of confining the activities of the child during education to those which will serve a human

* "The Hegelian theory swallowed up concrete individualities, through magnifying the Individual in the abstract." *D&E*, p. 70.

approximation of the ideal state. The activity school agrees with Dewey in rejecting both the Froebelian and the Hegelian form of education as development. It holds that the ideal man transcends the creative man of Froebel as well as the institutionalized man of Hegel—Dewey's "individual lost in the Individual." Dewey's objection that a Hegelian system of education leads to conformity of the individual to present institutions and the philosophic sanction for present class distinction, may well be turned upon himself. In making the social aspect of education all-important, Dewey also loses the "individual in the Individual," with this difference, that instead of the individual being lost in the present "Individual," that is, in present institutions, he is lost in the future "Individual," that is, the new institutions which education is charged with the duty of constructing in a progressive and changing democratic society. The activity school avoids this collectivistic dilemma by insisting that the ideal man transcends the social man.

c. Education as training of faculties

Dewey goes into considerable detail to show the fallacy of this conception of education,⁵⁵ but as this viewpoint has generally been discredited there is no necessity for enlarging the arguments against it. The disciplinarian believed that there are innate powers of the mind—faculties—which can be trained through exercise. But as there are no innate or latent intellectual faculties, the disciplinarian states as results what should be the aims. The fundamental error in the disciplinary viewpoint is the assumption of the transference of powers. But, as Dewey points out, a transfer of power as such, of power divorced from its object, is impossible. We cannot learn in general; we can only concretely learn something.⁵⁶ On the other hand, it is true that when successive activities have identic elements or sub-activities, something which frequently is mistaken for transference of power does take place. If a pupil has

learned to become neat in keeping a notebook, he will have learned the habit of neatness in letter writing at the same time. The apparent transfer of power takes place because the identic element—neatness in writing—is present in both cases. Consequently activities should be planned that are broad in scope so that they may contain many and various sub-activities each one of which is valuable in itself. Such activities, which can be found only when subject matter is regarded not in isolation but in its social context, and when education takes place in a social environment, lead to a general training of the mind, to growth in many directions.⁵⁷ With all of this the activity school is in hearty agreement.

d. Education as formation

This viewpoint emphasizes the unique role of subject matter in that it regards the mind as made up of those things that it contains. This notion results from the educational process, and it is the duty of the educator to select the proper subject for the pupil to form concepts. The "faculties"—attention, memory, thinking and the like—are "arrangements, associations and complications formed by the interaction of these . . . presentations (concepts) with one another."⁵⁸ Furthermore, since the mind is made up of concepts which it contains, and since concepts are formed by means of previous concepts, it becomes important for the educator to present the subject matter of education in a proper order.

Dewey admits that this Herbartian viewpoint has had beneficent effects in the sphere of conscious effort, definite aim, definite content, and definite procedure. But he rejects the view of education as a whole because it is teacher-centered, eloquent of teacher duties and procedures, but almost silent regarding the pupil's part in the learning process. It emphasizes intellect at the expense of experience, reason over attitudes, the old over the new.

Activity pedagogy is in complete agreement with Dewey

in this summary of the advantages and disadvantages of the Herbartian system. However, as we have seen, it does not reject Herbartianism entirely, but would retain the idea of curriculum, explicit in Herbart, as well as the demand for standards, implicit in Herbart.

e. Education as recapitulation

Although Dewey himself had recourse to the culture-epoch theory in formulating the course of study in the University Elementary School,⁵⁹ he rejects the view of education as recapitulation. It would make education retrospective, and its biological basis is questionable. Furthermore, "development has taken place by the entrance of short-cuts and alterations in the prior scheme of growth."⁶⁰ Education, in other words, should avoid the pitfalls of the past, not repeat them. On the other hand, "it is a part of wisdom to utilize the products of past history so far as they are of help for the future."⁶¹ But this type of education is backward looking, and hence must be rejected.

Activity pedagogy agrees completely with Dewey in his strictures on the culture-epoch theory. But it sees that this theory is useful to the educator, even though its biological proof may be suspect, in arranging curricular material according to the genetic principle, and it finds Dewey's own arrangement of such curricular material at the University School excellent for this reason.

f. Education as reconstruction

In contrast to these backward-looking viewpoints of education, Dewey proposes to utilize the past in order to interpret the present and anticipate the future. He calls this reconstruction or progressive⁶² education. He defines it as "that reconstruction or reorganization of experience which adds to the meaning of experience, and which increases ability to direct the course of subsequent experience."⁶³ Such reconstruction of experience may be social

as well as personal. Hence, a form of education which is reconstructive will vary as the social organism varies; in static societies, which regard the stability of custom and usages as a virtue, reconstructive education will be used to emphasize those qualities which society wishes to maintain. But in a progressive society, on the other hand, the aim of education will be not to reproduce present habits and institutions, but so to regulate the learning and experiencing activities of the young that a newer and better society will arise in the future.⁶⁴ This is as clear a statement of Dewey's meliorism as we could want.

"Progressive education" or "reconstructive education" are, therefore, terms which Dewey uses to describe the same thing that we have called "universal education" or "general education." Better still, it is "education with no qualifying adjectives prefixed,"⁶⁵ as both Dewey and the activity school would call it. Furthermore, activity pedagogy agrees that education takes different forms according to the society in which it exists as an institution. But, as we have seen before, the activity school parts company with Dewey when the latter lays upon education the task of reconstructing society. To state it antithetically for the sake of emphasis: the aim of education, for Dewey, is the ideal society; the aim of education, for the activity school, is the ideal man. It agrees that the ideal will never be reached, but insists with Dewey that the process of education is a constant, continuous, and experiential activity, moving in the direction of the ideal so set up.

2. The Democratic Concept of Education

From the foregoing, it will be seen that, for Dewey, everything—aim, subject matter, procedures, methods, organization—depends upon the kind of society for which the educational system is intended. It is, therefore, a logical and necessary step for Dewey to examine what he calls the "democratic conception of education."

Every society is characterized by two things: some in-

terest held in common; a certain amount of interaction and cooperative intercourse among the groups which together form the society.⁶⁶ A democracy has these characteristics in an especially high degree, for there are "more numerous and more varied points of shared common interests," and there is a "greater reliance upon the recognition of mutual interests as a factor in social control"⁶⁷ . . . than in other forms of society. A democracy must be more interested in education than any other form of government, not for the superficial reason that, where the consent of the governed must be obtained for government to function, it is necessary to educate the governed to a knowledge of their duties and responsibilities, but for the deeper reason that democracy is not only a form of government but a way of life—"a mode of associated living, of conjoint communicated experience."⁶⁸ This way of life breaks down the barriers of class, widens the areas of shared concerns, and puts a premium upon diversification and individualization. Once these conditions have been brought about, it becomes a matter of deliberate effort to sustain and extend them. Hence educational opportunities must be accessible to all, and each individual must be educated to personal initiative and adaptability. If the majority of the individuals of the democratic society attain these qualities, changes in social habits through new and varied circumstances will be possible without disaster.⁶⁹

There have been educational systems set up with a more or less democratic society in mind, but they do not fit our needs. So the Platonic system is rejected by Dewey because it made the class rather than the individual the unit;⁷⁰ Eighteenth Century individualism is found inadequate because it lacked an agency for securing the development of its ideal — the development of the individual — and had to fall back upon Nature for its aim;⁷¹ Hegelian institutional idealism of the Nineteenth Century is found wanting in that it subordinated the individual to the institution.⁷²

It becomes necessary for our democracy to define its aims for itself.

With this excellent analysis activity pedagogy is in completest agreement. The activity school regards itself as a democratic conception of education which, through its technique of the community of work, fosters the interaction and cooperative intercourse among the groups that Dewey speaks of. It insists that the democratic way of life is exemplified in the classroom, not through the abrogation of authority, but by the spirit in which authority as such is administered. This spirit includes a due consideration of the rights of the individual and the related rights of the group; it recognizes the value of the human qualities of consideration for others, mutual helpfulness, humor and moderation in exercising social control. It recognizes, as Dewey apparently does in the foregoing, that changes in human personality are possible, albeit necessarily very slow, and that only through such changes in human nature in the direction of the ideal man will "changes in social habits through new and varied circumstances . . . be possible without disaster."

3. *The Nature of Aim*

Since it is Dewey's contention that education is growth with the purpose of making possible more growth, education cannot have an aim extrinsic to itself.⁷⁸ The activity school, on the other hand, would deny that growth per se is an intrinsic good, an "absolute value" as it is for Dewey, who makes it both process and aim. Growth, for activity pedagogy, is good only when it is growth in a desirable direction, and that implies aim. If Dewey's dictum that the aim of education must be intrinsic to itself means, as is probable, that the aim of education is more education, the aim of growth more growth, then we must deny this categorically. Dewey maintains that if each act of the pupil is dictated by the teacher there can be no true aim in edu-

cation, for "an aim implies an orderly and ordered activity . . . in the progressive completing of a process . . . [hence] an aim means foresight in advance of the end."⁷⁴ With this we agree because we hold that having an aim does not mean teacher despotism.

Dewey then argues that an aim cannot be something fixed or immutable but is, instead, a dynamic condition of the consciousness which changes in response to the need for adjusting to constantly changing conditions. This is, of course, a very different thing from what most educators mean when they speak of an aim in education. Indeed, Dewey realizes this himself for he says that "education as such has no aims."⁷⁵ Dewey's surrogate for aim is a dynamic control of method, but, since such control is meaningless without reference to an anticipated end of the activity upon which the learner is already engaged, Dewey actually implies that there are as many aims as there are educational activities. Furthermore, since the determination of the activities must be done according to *some* plan or principle, since a choice of activities must be made on *some* basis, Dewey begs the question in not telling how such choice of activities comes about, or on what basis it is made. Once the problem is set, once the activity is under way, it is easy to see, as Dewey says, that the aim—or consciousness of what the end of the activity is to be—should be one that is an outgrowth of existing conditions,⁷⁶ should be flexible or capable of revision,⁷⁷ and should result in a situation which leaves the learner free to pursue other activities.⁷⁸

In short, the difference between the activity school and Dewey rests upon their different uses of the word aim. Dewey speaks of the aim of education, but really is concerned with specific aims of specific activities. When this limitation is borne in mind the difference disappears. The aim, by foreseeing the end, furthers the process of arriving at the end by giving direction to the activity, by observing how given conditions modify the way to reach the end, by

suggesting the proper order or sequence in the use of means, by choosing among the alternatives possible. The aim, in other words, is intimately incorporated with the process; in Dewey's phrase, "the net conclusion is that acting with an aim is all one with acting intelligently."⁷⁹

4. *Dewey's Aim of Social Efficiency*

While there is no single aim of education—"some one final aim which subordinates all others to itself"⁸⁰—there are general aims, which can be tested by seeing whether they are consistent with one another or whether they are mutually antagonistic. Dewey examines⁸¹ three kinds of aims which are usually stated by their proponents as final aims in education—the naturalistic, the social and the cultural.

Since these aims are generally known, and have been discussed elsewhere in this study, they need not be repeated here. Dewey's contribution, at this point, consists in the fact that he points out that when these aims are narrowly considered they become mutually antagonistic. Thus a cultural aim is individualistic; the aim for social efficiency, narrowly considered, subordinates the individual. The naturalistic aim of natural development is likewise anti-individualistic because it contrasts natural development to "artificial" culture; at the same time it is opposed to the social aim in its distrust of all institutions.⁸² When, however, these aims, all of them largely good, as Dewey shows in his discussion, are broadly conceived they are found not contradictory but consistent and harmonious.

We have paralleled this course of thinking and come to very similar conclusions. Like Dewey, we have examined the naturalistic, the individualistic and the social aim in turn, and, again like Dewey, have found that there is much good in each of them. We have synthesized these various aims in the aim of the ideal man which, we believe, includes all other legitimate aims of education.

In proposing social efficiency as the "aim" of education Dewey is not unmindful of the statement with which he

begins his discussion—that there is no one, final aim. Social efficiency is to be broadly considered; it may be regarded as a complex of aims in which the naturalistic, the individualistic and the social are mutually supplementary. The naturalist takes into account the natural development of the powers and capacities of the individual; but since these native powers can be developed only in activities, the conflict between naturalism and the broadly conceived aim of social efficiency disappears. Similarly, when social efficiency is narrowly defined it amounts to little more than fitting the individual to take his place efficiently in contemporary institutionalized society; broadly conceived, "social efficiency" includes this aim but goes beyond it.⁸² Rightly considered, social efficiency should mean the cultivation of the power to join fully and freely in shared common experiences. Finally, when it is remembered that individual culture is impossible without reference to social activities, and that, conversely, the power to join fully and freely in shared common experience is impossible without reference to individual culture, the conflict between the aim of culture and the aim of social efficiency likewise disappears. Social efficiency is therefore a generic term; it includes, in its broadest sense, the ideals of individualism, naturalism, and social education.

Apparently, therefore, the conflict between Dewey and the activity school as regards aim is resolved in agreement, for Dewey, like the activity school, synthesizes the legitimate aims of conflicting educational systems in a broader and higher ultimate aim. But this harmony is, on closer analysis, only apparent and superficial; the process of synthesis is the same but the product is different. Dewey's aim in the final analysis is sociological and, as we shall see in the next chapter when we discuss outcomes of education, is intended to bring about social improvements. The aim of the activity school is the ideal man; through him, it is true, the ideal society will be created but only because

the ideal society is a function of the ideal man, not the other way round. The activity school, therefore, centers its attention upon man rather than upon society.

5. Summary

Dewey denies that education may properly be conceived as preparation, unfolding, training of faculties, formation, or recapitulation. In general the activity school agrees with him but notes the following exceptions: first that though education is not *exclusively* preparation, it is always to some extent preparatory; second, that accepting the idea of education as unfolding does not necessarily place education into a Froebelian or Hegelian strait jacket; third, that a strait-jacket of individual conformity to new or future social institutions is just as confining as the Hegelian strait-jacket of the individual conformity to present traditional institutions; fourth, that rejection of Herbart's fundamental conception of education as formation does not necessarily involve discarding all the Herbartian practices which have been found pedagogically useful.

Dewey conceives of education as reconstruction and places upon it the responsibility for creating the ideal society; he calls this progressive education. The activity school thinks of itself as general education and assumes the responsibility for creating the ideal individual. Dewey conceives that the ideal society is a democratic society; the activity school agrees with him and regards itself as the only appropriate form of general education for a democratic society.

For Dewey education, being a process of growth, has no other aim than more growth. Therefore, when Dewey speaks of aim he really means the specific aim of any given activity. But he nevertheless examines naturalistic, individualistic, and social aims in education and finds that, when broadly conceived, these are not mutually antagonistic but supplementary. He, therefore, proposes the broad aim of

social efficiency for education which should include all legitimate naturalistic, individualistic and social aims. We note in passing, the contradiction involved in first denying an aim to education and later finding such aim in a synthesis of other legitimate aims. The activity school parallels Dewey's thought in synthesizing the legitimate aims of special forms of education ; but it proposes as aim the ideal man—an aim which is constant, but so far removed from us that all legitimate naturalistic, individualistic and social aims are included in it.

D. SUMMARY

In this chapter we have compared and contrasted Dewey and the activity school with respect to the nature, underlying philosophy and aim of education.

Dewey has defined education as a social necessity taking the form of directed activity to insure proper individual growth for social continuity. The activity school does not define education as such, but does define activity education as that tendency or direction in educational movements which, as a form of universal educational philosophy, accepts the activity principle as the basic principle for establishing aim and method in instruction and education.

Dewey thinks of philosophy as a method of determining appropriate action, hence philosophy is the theory of education as a deliberately conducted practice. This involves concepts of the nature of knowledge, and the basis of moral conduct, concerning both of which Dewey's position is that of the thoroughgoing pragmatist. In contrast, activity pedagogy uses philosophy as a basis and justification for its educational system ; it accepts the traditional view of the nature of knowledge, and, unlike Dewey, applies to ethics and religion for sanctions on which to base its theories for character training and the inculcation of morality.

Lastly, Dewey accepts social efficiency as the aim of education because this term is to include legitimate naturalistic, individualistic and social aims. Upon education is

placed the responsibility for the creation of the ideal society, democratic in form, but with progressively better and nobler social institutions. The activity school, on the other hand, states the aim of education as the creation of the ideal man. Like Dewey, it conceives its aim as so broad that it includes legitimate naturalistic, individualistic and social aims. But it does not place upon education the responsibility for the creation of a nobler social order; it believes, however, that as man progressively improves, the social order may be expected to improve with him. A better society is a by-product of a better man.

CHAPTER XI

AN APPRAISAL OF DEWEY'S EDUCATIONAL CONTRIBUTIONS TO THE ACTIVITY SCHOOL

PART II: METHOD, SUBJECT MATTER AND THE OUTCOMES OF EDUCATION

The factors of Dewey's educational system which we examined and compared with the activity school in the last chapter—the nature of education, its underlying philosophy, its forms, and its aims—are indeed basic; but, viewed in another way, they are only preliminary to an examination of his educational system. They are basic in that they determine what the process is to be; they are preliminary in the sense that they do not constitute the process itself. For, as Dewey says, an educational system always has three aspects from each of which it can be studied—curriculum, methodology, and administration.¹ We propose, in the present chapter, to compare these elements in the two educational systems, and to bring our discussion to a close with a similar comparison of the outcomes of education which Dewey and activity pedagogy, respectively, anticipate.

The difficulties of comparison are greatly augmented, however, by the fundamental difference in attitude in Dewey and the founders of the activity school. This has already been stressed—namely, that Dewey approaches his task as a philosopher laying down general rules for guidance of teachers who would put his philosophical and pedagogical theories into practice, while activity pedagogy, having been formulated by practical pedagogues, is specific in its recommendations as to curriculum, methodology, course of study, special method, conduct of the recitation, and discipline.

A. METHOD AND METHODS

1. *The Nature of Method*

Dewey points out that an important implication of his thesis that education consists of experiences is that method cannot be separated from subject matter. Method is simply "that arrangement of subject-matter which makes it most effective in use. Never is method something outside of the material."² Nevertheless, although "there is no consciousness of separation of the method of the person and of the subject matter,"³ still, "reflection upon experience gives rise to a distinction of *what* we experience . . . and the experiencing—the *how*."⁴ So, although method and subject matter cannot exist in isolation, they may be separated in our thoughts and separately examined. We can mentally analyze what we cannot physically dissect.⁵

With the foregoing, the activity school is directly in agreement as we have seen in the three chapters on heuristics. The close relationship between method and subject matter was indicated at the beginning of our examination of activity methodology by recording that subject matter was a function of method. But that subject matter and method may be conveniently separated for purposes of analysis and examination is traditional in education and acceptable to all educators.

When we focus our attention on the how—on method—we realize that our progress toward our goal will be furthered or impeded by certain factors. Method, therefore, consists of eliminating the unfavorable factors and so arranging the favorable ones into a procedure or technique, a method, that success in our efforts is secured.⁶

But instead of telling us what these factors are and how they are to be arranged, as activity pedagogy does *in extenso*, Dewey reverts to his warning that isolation of method from subject matter is dangerous. He sees the danger of neglecting concrete situations of experience, thus making

method something sacrosanct, something that has been imposed upon teachers by tradition or authority instead of resulting, as good method should, from their own experience and intelligent observation.⁷

This is the danger which we have called didactic formalism. A second danger according to Dewey, is that false conceptions of discipline and interest will arise; this idea will be more fully discussed in the next section. A third danger is that the learning process is made an end in itself instead of a means to an end. A good method requires that the pupil's attention be fixed on a purpose to be achieved—he wants to make a windmill or to write a letter. Learning the manual skills involved in the former, for instance, is a by-product of the process of working to achieve his end. But the poor method that Dewey warns against would deprive the child of the incentive of a purpose or goal and fix his attention, self-consciously, upon the process itself.⁸ Finally, there is the danger of making the method a mere mechanical routine, without interest in or attention to either goal or process.⁹ It will be noted, however, that these last two dangers are aspects of the first. That activity pedagogy is aware of the first, third and fourth dangers, and cautions us against them, is clear from our discussion of the evils of didactic formalism.

Methods, according to Dewey, may be either general or individual depending on whether they are applicable to general situations or to individual learners. According to activity pedagogy, the best form of general method is heuristics; furthermore the activity school is aware of individual differences in pupils and hence would classify pupils into memory, perception and other convenient types, and modify the method to suit the pupil. This corresponds to Dewey's individual method. It is to be noted, however, that Dewey here uses terminology which is different from that employed by most educators. The adaptation of method to suit the particular needs of the individual is usually called individualization; such individualization of

instruction is, of course, part of the general problem of method. But most educators do not analyze method into general method and individualized instruction, preferring the more natural division of method into general and specific. Specific method is the adaptation of general principles of method to fit the needs of a special subject; for example, the comparative method, which has been suggested as specific for geography teaching.

General method, according to Dewey, consists of the technical knowledge of procedure in teaching based upon either the teacher's own experience or the experiences of other teachers as recorded in the history of education. Ideally it also includes a knowledge of what is considered best in current practice. General method, in short, is the teacher's familiarity with techniques authorized either by past experience or present intellectual analysis through which the best results may be obtained.¹⁰ These general methods are useful to teacher and to pupil when properly applied. They must be used as a guide to what activity is probably best. But they must not be used to suppress individual initiative and originality. A prescribed rule cramps, confines, stifles; general method illuminates goal and path while allowing freedom in individual modification.¹¹

The activity school is completely in agreement with Dewey, so far as he goes, but is more detailed in its description of method. For Dewey contents himself with a mere reference to the body of methodology accumulated in the past and justified by both theory and practice; the activity school, on the other hand, has examined educational history for valid truths of method and completed the work of intellectual analysis of variously proposed methodology. But that it is not unaware of the danger of prescribing even the best general method as a definite rule, is shown in the warning not to overdo the application of even the activity principle as method in situations where it is not naturally applicable. This danger we have called didactic formalism.

When a method is applied to an individual, Dewey continues, it must be derived from his native tendencies and acquired habits and interests. Such methods will vary from individual to individual, and therefore cannot be specifically described. However, they have certain characteristics in common, which are attitudes found effective in dealing with subject matter. The description of these intellectual attitudes will, therefore, have to serve as description of individual methods. There are four such characteristics of good individual method according to Dewey.

The first is *directness*—lack of self-consciousness, absence of embarrassment and restraint. Self-consciousness leads to divided attention, for the self-conscious pupil is concerned not only with the solution of his problem but also with what others think about him and his method of working. Self-consciousness leads to inefficiency, aimlessness and distraction.¹²

The second is *open-mindedness*—a quality and attitude of the mind, which makes it capable and willing to receive impressions, from whatever source they may be derived, which will be of value in the solution of the problem the mind is presently engaged upon. It includes a willingness to receive and consider points of view which differ from those customarily held; open-mindedness is the enemy of wishful thinking and the chief agent in promoting intellectual growth. But open-mindedness is not to be confused with empty-mindedness.¹³ The latter is a kind of passivity; open-mindedness is active in the sense that it welcomes the new idea for consideration and a hearing.

The third is *single-mindedness*.¹⁴ Single-mindedness is the antithesis of a divided state of interest, in which the pupil is torn between a desire to pursue one line of conduct agreeable to himself, and the knowledge that he is expected to pursue a different line by his teacher. Lack of this quality leads to the necessity for stern discipline, harsh repressive measures, emphasis upon mere drill, with

consequent production of merely mechanical skill rather than understanding.

The last characteristic of good individual method is *responsibility* — an attitude of mind through which the pupil is enabled to foresee and accept the probable effect of his act. It is related to good planning on the one side, and to perseverance in a course of action which he has determined for himself, on the other.¹⁵ It would be far better to have fewer units of study, if the smaller number of situations could be thoroughly worked out by the pupil to the point where the pupil identified himself mentally and emotionally with the results of the activity he is engaged upon.

It will be evident, however, to the thoughtful teacher that Dewey is in error when he speaks of directness, single-mindedness, open-mindedness, and responsibility or thoroughness, as characteristics of "individual method," whether by this term he means individualization of instruction or specific method. The four characteristics he mentions are desirable personality traits, not attributes of method. Methods are *means* to bring about results; open-mindedness, etc., are mental results which good method would bring about. In contrast to Dewey's confusion of means with ends illustrated in this discussion of individual method, the activity school is on firmer ground when, as we have seen, it distinguishes between individualization of instruction and specific method. To individualize instruction activity pedagogy recommends the practice of the individualists and experimentalists in education, who have classified pupils into types and modified the method according to the type. On the other hand, special method is developed when the general principles of method are applied to specific subjects of the curriculum in such ways that the genetic principle of development of subject matter functions.

2. *Interest and Discipline*

Dewey's famous doctrine of the relationship between interest and discipline is so well known that there is little

occasion to go into detail in this place. Interest, to Dewey, is inherent in the entire educational process—the process of purposeful activity to reach a socially desirable goal. But interest has two phases—an intellectual side which concerns itself with the objective results that are being sought, and an emotional side which identifies the doer with the activity through the desire to further the process and to persist in it until success is achieved. Dewey is very careful to distinguish between "interest" as used in *soft pedagogy* and his own use of the term. When he says that the materials of instruction should be made interesting he means that the clear connection which the material already has to the child's purposes, aims and powers should be stressed. To make material interesting in Dewey's sense means to select the activity in accordance with the child's purposes and abilities and then to use a normal, natural motivation. In this sense making material interesting is simply using good teaching methods. But, on the other hand, when material is made "interesting," not in Dewey's sense, but by artificial means—e.g., through a system of rewards and punishments—the teaching is bad, and the method cannot be too severely condemned.¹⁶

The second half of Dewey's doctrine of interest and discipline is the dictum that discipline is an outcome of interest. Dewey regards a person as disciplined who is the master of his actions in the sense that he undertakes them of his own volition, for his own purposes, and maintains his course of action in the face of disappointments, difficulties and distractions. Such a disciplined person has to be intelligent enough to know what is the appropriate action to perform, and of sufficient power of will to persist in the action in spite of adverse or unfavorable factors.¹⁷

Discipline, as well as interest, therefore inhere in concrete situations, not in an abstraction. By selecting materials which have an aim or purpose of moment—in other words, by selecting the appropriate activities—both interest and discipline are secured.

When we turn from Dewey to activity pedagogy, we find that a comparison is difficult because most educators do not use Dewey's units of thought in their discussion. The activity school conceives of discipline as part of the whole problem of moral training or hodegetics ; but Dewey, in the discussion which we have followed in the foregoing section, isolates one aspect of character, namely discipline, for special observation and analysis. Fortunately, Dewey defines what he means by discipline in terms of purpose, deliberately undertaken action and persistence in the face of failure and distractions until a successful outcome of activity is reached. Activity pedagogy, of course, agrees with Dewey that this attitude and ability on the part of the pupil is highly desirable ; furthermore, that such attitude is fostered—as part of the pupil's moral training—by means of purposeful activity voluntarily undertaken by the pupil in a social situation.

But Dewey points out that his doctrine of the relation of interest and discipline has several far-reaching educational implications. These implications and the point of view of the activity school can be placed in parallel columns for purposes of comparison.

Dewey¹⁸

1. The mind is not something complete in itself which then applies itself to materials and topics with the result that knowledge ensues.
2. Mind and purposeful activity are identical.
3. To develop a mind is to provide opportunity for such activity.
4. Subject matter is not isolated from method.

The Activity School

1. Complete contradiction. The mind is complete in itself ; it applies itself to materials and reacts ; out of such reactions, knowledge comes.
2. Mind and purposeful activity not identical, but self-activity is a function of the mind.
3. Agreed.
4. Agreed.

*Dewey¹⁸**The Activity School*

5. Subject matter includes all objects, principles and ideas which enter as aids or obstacles in the course of purposeful activity. 6. Purposeful activity is the unity which holds together the noumenal and phenomenal worlds.	5. Agreed. 6. Activity of the mind bridges the gap between the inner and the outer worlds. But sometimes, e.g., passive sensation or perception, such activity is not purposeful.
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3. The Nature of Experience

Although Dewey discusses the nature of experience in his *Democracy and Education*,¹⁹ he expands his discussion in his later work, *Experience and Education*.²⁰ In the former book, he defines experience as "primarily an active-passive affair . . . not primarily cognitive."²¹ It is active in that it is a trying—a striving for; at the same time, it is passive in that it is an undergoing—a suffering of the consequences of action. In the later book, the author examines experience more narrowly, and finds that while everything that occurs to anybody is an "experience" in the sense that it has happened, for an educator experience has significance in that it is part of a continuum whose effects go on and on. These effects take the form of emotional and intellectual habits or attitudes, and, as they may be either good or bad, the educator has the duty of so selecting experiences for the pupil that good will result. To get the maximum of good, the educator must see that, for the pupil, there is a proper balance between the external and the internal factors of experience. This means that there is a perception of the relationships to which the experience leads. So we return again to Dewey's idea of education as growth; the purposive activity is an experience, which is part of a continuum, whose relationship with previous and future ex-

periences is understood. Such experience is educative to the extent that it results in growth, or a capacity for wider and fuller subsequent experience.

If we substitute for Dewey's term, "experience," our corresponding term, "pedagogical activity," we see that with everything that Dewey says about "experience," we are in complete agreement. Our definition of pedagogical activity as any exertion of human power, mental or physical, to overcome resistance by which cultural values are created, avoids the necessity which Dewey is under to distinguish between experience which just occurs, and true or pedagogic experience which leads to learning. In Dewey, experience leads to growth, which means the ability to profit by further experience; in the activity school, pedagogical activity leads to cultural values through which further pedagogical activity may be undertaken. Of course, Dewey's pupil gains only further means; the pupil in the activity school gains an objective thing which is called a cultural value, but which may also be used as a means of acquiring further cultural values. However, this distinction concerns itself with the theory of knowledge, and is not the point under discussion in Dewey's present analysis.

4. *Nature of Thinking*

Dewey refers to the "proper balance between the external and internal factors of experience" and to the fact that such balance arises when there is perception of relationships involved in the experience. This perception of relationships is thought. "Thinking . . . is the intentional endeavor to discover *specific* connections between something we do and the consequences which result, so that the two become continuous."²² It makes it possible for us to act with an end in view; it implies concern with the result of our action, and identification of self with the action and its result. It is a process, which, although it arises in emotional partiality (the concern for the outcome

of our action), nevertheless leads up to impartiality, or objectivity, so that "with a widening of the area of vision through a growth of social sympathies [we learn] to include what lies beyond our *direct* interests."²³

Dewey then gives the famous five steps of the thinking process—a felt need, scrutiny of existing conditions, marshalling all possible solutions, selection of hypothesis, trial or verification.²⁴ Such thinking results in knowledge, but knowledge has value only in that it enables us to do more and better thinking. For unless such knowledge functions in better thinking by enabling us to face the future tasks imposed upon us by the changing, dynamic nature of the world we live in, then such knowledge is idle and merely retrospective. Our main concern in thinking, says Dewey, is with the future—not with the past.²⁵

In spite of the difference in terminology employed by the activity school and Dewey, which arises out of differing methods of approach to the problem, activity pedagogues see eye to eye with Dewey. Like him, they are concerned with the "proper balance between the external and internal factors of experience"; they agree that such balance arises out of perception of relationships; they call this mental phenomenon of the recognition of relationships judgment; for them, as for Dewey, the end product of judgment is conclusion. Dewey discusses how we can make sure that judgments are valid in his "*How We Think.*"

Similarly, as we have shown in the chapter on logical heuristics, the activity school is careful to distinguish between valid and invalid judgments, and endeavors, through proper control of the external factors of education, to foster in pupils a growing ability to form valid judgments for themselves.

Dewey gives us his famous five steps in the thinking process; the activity school, dividing the material differently, is concerned with motivation of judgments and the relation of motivation to validity, the inductive method, the

laws of probability, the types of conclusion. Dewey agrees with the activity school that information is necessary in order that we have the tools for forming correct judgments, but warns against mere piling up of information for its own sake without reference to use. Dewey says such information isn't *knowledge* at all; activity pedagogy teaches that unmotivated judgments are only blind acceptances, not *judgments* at all, and warns us against the dangers of didactic materialism—the mere amassing of facts without reference to use. The activity school agrees with Dewey that the whole purpose of thinking, of forming judgments, is that it results, in Dewey's phrase, "in the solidity, security and fertility it affords our dealings with the future." That is only another way of saying that through thought, impressions become understanding, and expression becomes intelligently ordered.

5. Summary

Activity pedagogy follows Dewey in holding that method and subject matter are, in practical school situations, inextricably combined, but that for purposes of theoretical discussion we can isolate them. Method, viewed largely, is simply arrangement of subject matter for use. It may be either general or individual, according to Dewey; it may be either general or specific, according to activity pedagogy. General method is a body of practices which have been found useful in the past, but care must be taken not to let method dominate teacher and pupil lest didactic formalism result. Individual methods, Dewey says, have the characteristics of directness, open-mindedness and thoroughness; activity pedagogy teaches that individualization of instruction should be a characteristic of all method, general or specific. Such individualization consists of adapting the method to the type of mind with which the pupil has been endowed.

Dewey believes that the problem of discipline will dis-

appear if the pupil's activity is made legitimately interesting, that is, connected with a vital need. The activity school regards discipline as part of the larger problem of moral training, but agrees with Dewey that, if we define discipline in Dewey's terms as an ability to carry through to completion a chosen unit of activity in spite of distractions and discouragements, then, making the activity vitally interesting and connected with pupil's interest will solve the problem of discipline. However, Dewey sees certain implications of this relationship between interest and discipline, with which, because they involve also certain philosophical considerations, the activity school cannot entirely agree.

Complete agreement is found in the realm of thinking and judgment formation. Dewey's approach is more general; the approach of the activity school is more specifically pedagogical. Dewey's five steps in thinking are paralleled in logical heuristics. There is need of information on the part of the pupil in order that he have the wherewithal to form valid judgments, but we must avoid the danger of didactic materialism—the worship of factual knowledge without reference to use. The activity school agrees with Dewey that the end product of thinking should be understanding—a solidity and security of our knowledge, coupled with a fertility of resource in dealing with the future.

B. TYPES OF SUBJECT MATTER

Subject matter "consists of the facts observed, recalled, read, and talked about, and the ideas suggested, in course of development of a situation having a purpose."²⁶ We have already noted that Dewey also believes that subject matter cannot be dissociated from method; thence "the educator's part . . . is to furnish the environment which stimulates response . . . [which is of necessity] a social environment to give meaning to habits formed."²⁷ With this analysis activity pedagogy agrees.

i. Nature of Subject Matter

In primitive life education is largely occupational — how to fish, to hunt, to plant, to cast the spear, etc. In addition, there is also a body of tradition, ritual, songs and liturgies which primitive society wishes to perpetuate by transmission to the young of the race. This formal part of education tends to grow in content as society becomes more complex, until it completely overshadows the occupational part of subject matter. Education of the young, therefore, ceases to be informal and incidental to living, but requires a separate institution whose function is to transmit to the young the knowledges, skills and attitudes which society finds desirable. An analysis of the history of pedagogy furnishes ample proof of the facts as Dewey states them. Dewey next points out that subject matter has two functions: first, it furnishes the pupil with those knowledges, habits and skills which will enable him to function effectively in the social life of which he is a part; secondly, for the teacher it supplies a knowledge of the outcomes of previous activities which enable him, the teacher, to understand the present apparently aimless actions of the pupil.²⁸

We would classify all this as method or didactics, but as Dewey insists on the close union between subject matter and method the distinction is not significant. Dewey explains his statement by citing the example of the child whose inchoate musical impulses are intelligible to the teacher who, because of his knowledge of musical subject matter, is in a position to see how these inchoate impulses may be utilized to further the child's musical education.

In continuing, Dewey says that subject matter is differently viewed by the teacher and the learner. This follows, of course, from his analysis of the functions of subject matter as we have seen above. For the teacher the various curricular subjects or activities are tools through which the pupil's reactions, needs and capabilities can be discovered;

the teacher is not interested in subject matter as such but merely as a means to an end.²⁹ The teacher's knowledge of the subject matter extends far beyond that of the pupil: furthermore, the subject matter is organized logically in the instructor's mind, as it is not in the pupil's. "The problem of teaching is to keep the experience of the student moving in the direction of what the expert already knows."³⁰ Again we would classify these facts under method rather than under subject matter.

From the standpoint of the student, Dewey continues, subject matter first comes to him as knowing how to do—to walk, to speak, to write, etc. Hence, concludes Dewey, "the arts and occupations form the initial stage of the curriculum, corresponding as they do to knowing how to go about the accomplishment of ends."³¹ Having to *do* soon leads to acquaintance with things—with food, paper, pencil, chairs, clothes, etc.—a familiarity with the objects with which the occupations of the initial stage are carried on. Finally, subject matter for the pupil becomes knowledge of ideas, which are, like the physical objects with which he previously became familiar, tools with which to carry on his activities. This third type of subject matter is usually called information, and it is acquired by the pupil through communication of all kinds—speech, reading, writing, observing, etc.

Here we must part company with Dewey, not because of any objection to Dewey's classification of the types of subject matter into (*a*) knowing how to do, (*b*) acquaintance with things and (*c*) acquaintance with facts, but because Dewey, like Froebel before him, concludes that the curriculum should be constructed according to this classification, and that the types of instruction should follow in the order of this analysis.³² We have pointed out that even the kindergarten child comes to us with knowledge in all three categories. Hence, while instruction should be in the form of activity, that activity should not be confined merely to processes but should include also instruction

leading to familiarity with things (object lessons) and to a knowledge of facts. Subject matter should be presented to the child as a unity of physical and mental processes, and acquaintance with things and ideas.

Dewey next points out that there is so much information available that no man is able to master all of it, so that it becomes the duty of the school to select what is most necessary and vital. But this selection carries with it the danger of causing subject matter to be regarded as something valuable in itself apart from its function of making meaningful the pupil's present experience. With this we have agreed, as our warnings against didactic materialism amply show. Dewey continues his thought by pointing out that the danger is intensified by the tendency of the instructor to conceive his task as successfully accomplished to the extent that the pupil is able to reproduce the subject matter in set phrases. Here again we find the activity school supporting Dewey. Activity pedagogy suggests that two factors in traditional education have been largely instrumental in thus unduly enhancing the importance of subject matter: the pride of the special teacher in the special subject he teaches; and secondly, the traditional "catechetical form of the recitation" which emphasizes reproduction of textbook instead of ability of the pupil to think and act independently. Such mere verbal reproduction is taken, erroneously, as a sign that the pupil has "learned the lesson." Actually, however, as Dewey points out, informational knowledge is useful only as established data through which we can arrive at new knowledge. Information, in other words, is the "known" from which we proceed to the "related unknown."³⁸

This brings us to another observation which Dewey makes in connection with subject matter—the idea that information should be both scientific and social. Real information is scientific; that is, it is true, it is organized, it is rational. Through it we are enabled to weigh and consider our evidence before arriving at a judgment;

through it we can test our result; through it we are taught to suspend judgment and to avoid the pitfalls of blind acceptance of wishful thinking. Real information, scientifically organized, is therefore more than a body of facts; it is also a means whereby we can increase our store of knowledge.³⁴

Activity pedagogues would certainly agree with this, though it is hard to see how Dewey can reconcile this statement of the objectivity of the truth of scientific fact with his own expressed theory of knowledge. Knowledge according to Dewey, when he is discussing the philosophical basis of education, is not something that exists in itself, that has objective reality, but exists only when it is at work; that is, when it is instrumental in bringing about the solution of problems.

Furthermore, Dewey continues, information, to be educational must also be selected according to the criterion of its social worth. Since not everything can be learned, since selection must occur on account of the vast bulk of possible learnings, the best principle of selection would be to take into account the special needs and potentialities of the community in which the child lives. In this way the entire social life of the community will be improved and the future will be an advance over the past.³⁵

All educators would agree, of course, that there must be a basis for selection from among the vast number of possible learnings. But activity pedagogy would not necessarily agree with Dewey in his selections because, while it agrees that the pupil must be adapted to life in the existing community, it does not accept, along with this, the sociological aim of Dewey's educational system for improving society.

2. *Subject Matter as Activity*

We have just noted in the preceding section that Dewey makes knowledge of how to do things basic in education.³⁶ Education on this level, therefore, is physical activity which

takes the form of either play or work. The distinction between these is that play usually is activity undertaken for the sake of the activity itself, while work is activity undertaken for the sake of an end product or purpose. The distinction between work and play, however, is not educationally important as both are conducive to learning.

The available activities for play and work are very numerous—paper, cardboard, wood, leather, cloth, yarns, clay and sand, metals, etc. Dewey warns, however, that these activities, as they are usually taught, do not have the educational value they might have because teachers are prone to subdivide the fields of activity into special tasks, each one of which is supposed to teach the use of a new tool or a new process.³⁷ The activity, therefore, becomes an activity undertaken for the teacher's purpose rather than the child's. This is equivalent to losing sight of the greater good for the sake of the lesser; the pupil's attitude toward self-expression through manual activities is of far more importance than that the physical product of his activity should be technically perfect.³⁸

Dewey suggests as an alternative to this plan to use the native experience of the child to its widest extent, giving him raw material to work with rather than partly finished products, and engaging his activities on wholes—whole concerns or interests in all their ramifications, or the "functional development of a situation."³⁹ He also suggests as interest-wholes various activities, fundamental in social organizations, such as those connected with getting food, shelter and clothing. Such activities are significant not only in themselves, but also because through them the child gains insight into the extremely important social processes of production, distribution and consumption.⁴⁰ Similarly, the activity school envisages comparable interest-wholes or units of activity when it suggests "home-and-life," or child-life, as it is sometimes called, as the basic and undifferentiated course of study for the first three years.

3. Subject Matter as Social

The social quality of experiential activity, Dewey continues, is especially prominent in the social sciences — geography and history. These subjects "supply subject matter which gives background and outlook, intellectual perspective, to what might otherwise be narrow personal actions or mere forms of technical skills."⁴¹

Geography has been defined as the study of the earth as the home of man; it therefore rightly includes nature, for it concerns itself with all the natural factors of man's environment. Similarly history may be defined as the study of the social (as opposed to the natural) environment of man. It supplies the time element as geography supplies the space element in the account of man's activities. Together these two subjects are of greatest cultural and informational value; they are the "content subjects" *par excellence* of the curriculum.⁴²

Dewey proposes that history and geography should either be taught together or at least very closely integrated. When taught without reference to each other history tends to become a mere matter of memorizing dates; geography similarly degenerates into a memorization of place-names.⁴³ On the other hand when present social life and activity are made the point of departure — when the present is explained genetically in the light of the past, and, conversely, when each fact becomes significant for us because of our present needs and experiences — when, further, both present and past activity is presented in its proper physical and natural setting, then geography and history fulfill their proper function of supplying humanizing information. Dewey leaves the subject with the note that economic and intellectual history, heretofore neglected for political history, are superior to the latter because they are socially more important and ethically more educative.⁴⁴

There is nothing to add to this from our point of view, for the agreement is complete. The activity school values

geography and history for the same reasons that Dewey does; it includes nature and geography as together forming the space setting for man's activity as history is the record of man's setting in time. We have chosen geography as the subject in which to illustrate the heuristic method, first, because geography is *par excellence* the content subject of the curriculum; secondly, because it is universally distributed throughout the course of study from kindergarten to university; and thirdly, because it includes form as well as content factors. Finally, entirely in the spirit of Dewey, activity pedagogy suggests that as the pupil advances through the primary grades, the unified, undifferentiated subject of home-and-life will naturally polarize about two nodes—nature and man.

4. *Subject Matter as Scientific*

The final stage of informational subject matter according to Dewey is the scientific. Therefore, from the standpoint of the learner, scientific form is an ideal to be achieved, not a starting point from which to set out.⁴⁵ However many teachers, who have the curricular material logically arranged in its organized scientific form in their own minds and who forget the pupil's needs in their enthusiasm for their subject, attempt to convey scientific information to their pupils and thereby reduce instruction to mere verbalism. The pupil's approach to science is what Dewey calls chronological, by which he means that the pupil passes from cruder to more refined intellectual qualities of experience and assimilates scientific knowledge, not according to a logically developing organization of scientific material, but in connection with these chronologically occurring activities and experiences. The dictum "from the simple to the complex" for the scientist would mean a genetic development of science from "simple principles" to "complex applications"; but for the learner this dictum means that he proceeds from experiences having simple purposes to other experiences having more complex

objectives, and he will learn, chronologically, whatever scientific information is involved in the chronological series of his experiences. Up to this point activity pedagogy agrees with Dewey.

But, Dewey continues, science is closely related to social progress. By means of generalization, abstraction and definite formulation, science emancipates us from the local and temporary incidents of experience, and makes the experience of all men available as apperceptive material for every man. This progress takes two forms: the ability to get closer to ends already sought, but also, and far more important socially, the ability to set up new purposes that are improvements upon the old. From the former point of view, science enlarges our control over nature in such things as the conquest of disease and the breaking down of space and time limitations to communication between peoples; from the latter point of view, science enables us to propose new developments in social structure which will result in better human conditions in our common social life.⁴⁶

At this point the parallelism between activity pedagogy and Dewey breaks down. Dewey is, as a pragmatist, more interested in the uses to which organized knowledge can be put; activity pedagogues are more concerned with the way in which generalizations are made by pupils, and how different types of generalizations require different teaching techniques. As regards the important role that science plays in modern life, all educators, no doubt, agree with Dewey. Finally, as has been so often noted, Dewey's preoccupation with social amelioration finds no direct counterpart in activity pedagogy.

When Dewey views science as an agency of social progress, it becomes entitled to a place among the humanistic studies. Language, literature and philosophy are an account of things human, but if they are taught apart from their application to present day social life they do not deserve the name of the humanities which they have arrogated to

themselves. Nor is science a humanistic study when it is taught for its own sake as organized knowledge. Science as organized knowledge is the special concern of the scientist, but for the educator science is first and foremost human knowledge. Science is humanistic, first because it explains the natural conditions under which human action takes place; secondly, because its experimental method is applicable to the human problems arising out of our social organization and of our hopes to better present social conditions; and lastly, because its effect upon human beings is to liberate the intelligence and enlarge human sympathy. Viewed this way, and taught in this spirit, science is more truly humanistic than the classical "humanities."⁴⁷

From the foregoing analysis we again are made aware of Dewey's preoccupation with social amelioration. Dewey attempts, as Spencer did before him, to determine what knowledge is of most worth. The subject is philosophical and sociological rather than pedagogic; the ideas expressed, while in no way antagonistic to activity pedagogy, nevertheless are not an essential part of the special pedagogy of the activity school.

5. *Summary*

The activity school agrees with Dewey that subject matter is everything connected with educational experience. Subject matter can be classified into three kinds: learning to do, becoming familiar with things, becoming familiar with facts or ideas. For Dewey these are three successive levels of subject matter; activity pedagogy finds all three kinds of subject matter inextricably united on all levels.

Activity pedagogy, like Dewey, distinguishes between work and play, but realizes that, as both work and play are educational, the distinction isn't vital. It advocates, especially in the primary grades, subject matter that comes in units of activity (Dewey's phrase); like Dewey, it emphasizes the social sciences. Dewey finds his units of activity in man's basic occupations such as food-getting,

housing, clothing, transportation; the activity school suggests an undifferentiated general subject of home-and-life, thereby agreeing with Dewey and including the activity units which Dewey advocates.

Informational subject matter, according to both Dewey and activity pedagogy must have social usefulness, though for Dewey social usefulness means amelioration of societal forms, which the activity school regards as beyond its province. The informational or content subjects *par excellence* are history and geography-and-nature. These should be taught psychologically, not logically, at first; later the pupil will gain in ability to arrange his ideas logically, at which point information becomes scientific. The activity school, like Dewey, would stress the social value of the content subjects; in addition, Dewey sees in science a force for improving society. From this point of view, science can be regarded as one of the humanities.

C. THE OUTCOMES OF EDUCATION

1. *Educational Values*

The educational process which we have been examining will result in the creation of certain educational values, according to Dewey. But in order to carry on a discussion of what the probable values are which may be expected as outcomes of his educational system, Dewey finds it necessary to define the term "value." To value means really two things—to prize, and to apprise; the former involves the emotions, the latter, the intellect. We *prize* a thing when we love it; we *apprize*, or evaluate, it when we form a critical judgment concerning its relative worth.⁴⁸ It follows that values are of two kinds: absolute and relative; or, as Dewey expresses it, intrinsic and instrumental. But this does not mean that a value is immutably either one or the other; on the contrary, a given value may be at one time absolute and at another time relative depending upon whether the value presents itself in isolation from other

values or in conjunction with them. When two values present themselves simultaneously under such circumstances that a choice has to be made between them—for instance, the choice between going to one of two interesting affairs both scheduled for the same time—then an order of preference is set up; in other words, absolute values become relative.

We can see immediately why Dewey prefers the words “intrinsic and instrumental” rather than the simpler words “absolute and relative” when we follow his discussion of values to its application in education. The intrinsic value of any study or activity is the value it has in itself for satisfying a present need; but it also has an instrumental value in that it enables the process of education to go on, in a subsequent future activity which would be impossible unless the learner were equipped with powers, abilities, appreciations previously gained as intrinsic values. While every subject admittedly has an intrinsic or absolute value, from Dewey's point of view of education as growth the relative or instrumental value is of greater importance. It follows, therefore, that the subjects of the curriculum cannot be arranged in a scale of relative values, nor can specific human values be assigned as the special provinces of individual curricular subjects.⁴⁹

Dewey's discussion of value, here summarized, is in no way in conflict with the analysis presented elsewhere in these pages. We noted that values can differ only in degree, not in kind; hence, strictly speaking, it is an equivocation to speak of “cultural values” or “educational values.”

To achieve the educational values which he claims the schools should contribute, Dewey finds it necessary that education throw off the shackles of a whole series of mistaken dualisms which at present bedevil it. Education is characterized by a “unity or integrity of experience,”⁵⁰ and not by dualisms or antitheses. The first of these dualisms—that between the appreciation studies *vs.* the knowledges and skills—Dewey has attacked in his discussion of value

by showing that all subjects have both kinds of values, intrinsic and instrumental. In this opinion Dewey is supported by activity school practice. Continuing his development of this point, Dewey says that the instrumental value of a subject is determined by the degree to which it contributes to the solution of the immediate problem; furthermore, that the error of attempting to assign separate intrinsic and instrumental values to the separate subjects of the curriculum is founded upon an undemocratic division of society into social classes.⁵¹ This idea he expands in the next section.

But before proceeding with this new topic, we note that the activity school is in fair agreement with Dewey's views of educational values.

Activity pedagogy generally speaks of cultural and practical values instead of intrinsic and instrumental values as Dewey does. It agrees with Dewey that the subjects and activities of the curriculum have both kinds of value; on the other hand it is hardly concerned with the reason why some educators erroneously ascribe one or the other kind of value exclusively to individual subjects. It, therefore, contents itself with a methodology which utilizes the cultural and practical values of each activity as it arises.

2. Labor and Leisure

One of the most deep-seated of the mistaken dualisms, according to Dewey, is the antithesis believed to exist between a life of labor on the one hand and a life of leisure on the other, which leads educationally to the distinction between utility and culture, or, said another way, between "practical" and "liberal" education. This antithesis is based on the division of society into laboring and leisure classes; the former is to be given a "practical" education, the latter a "liberal" education.⁵²

While we have, in our democracy, rejected the idea of an innately servile class, we still tend to emphasize the difference between the proper kind of education for the

child destined to become a workman and that suitable for the more fortunate who is regarded as freed from the necessity of working with his hands. For the former we emphasize the skills; for the latter the appreciations. The former is trained; the latter is "liberated in spirit." The education of the former is useful and fits the child for his place in our industrial set-up; that of the latter is cultural and has little connection with the industrial organization of our society.⁵³ The conflict between our political and education traditions leads to a curriculum which is an inconsistent mixture. On the one hand the growing importance of economic activities has led to the introduction of practical subjects into a cultural curriculum; conversely, the increasing facilities for leisure even among our laboring classes have caused the introduction of cultural subjects in practical curricula. The result is a mixture which is neither utilitarian nor cultural.⁵⁴

Pointing out that leisure is no longer the sole prerogative of the "leisure-classes," and that "the invention of machinery has extended the amount of leisure which is possible even while one is at work,"⁵⁵ Dewey recommends that the old antithesis between a utilitarian and a liberal education be dropped. The ideal of an educational system for a democratic society is one which will liberate the mind and spirit of all, and which will regard leisure, not as the prerogative of a favored class, but as a reward to all who fulfill their social responsibilities be they what they may.⁵⁶

Dewey's thought in this connection is closely paralleled by activity school practice. It will be remembered that we have rejected Kerschensteiner's proposals for a definitely vocational trend in general education, chiefly because Kerschensteiner's system is based upon the belief that, as the masses of those entering our schools are destined to earn their living in some form of manual toil, it would be of advantage to increase their vocational and manual efficiency as early as possible. The activity school believes, however, that all pupils, especially those who are destined

for the professions will have need of manual skill. It, therefore, advocates manual training of some kind for all pupils, not only for the "practical value" of such training, but also because of the "cultural value" inherent in these subjects. The activity school opposes the dualism which Dewey denounces quite as vehemently as he does and declares that the disrepute in which the manual arts are held as curricular material has resulted in the creation of a "white-collar proletariat" which is a danger to the state. Like Dewey it realizes the need of a greater appreciation of labor and the products of labor, and, again like Dewey, it indicates that such appreciation can hardly be expected to materialize until all people in their youth have had an opportunity, through actual social participation in manual activities, to develop the social outlook which must underlie an appreciation of labor and to acquire at first hand some knowledge of the techniques of construction upon which an enhanced appreciation for technical products must be based.

3. Experience and Knowledge

Another dualism which the new education should annihilate, continues Dewey, is that between intellectual and practical studies, theory and practice, intelligence and execution, knowledge and activity. This dualism consists of contrasting experience and knowledge as sharply as may be and of severely delimiting the field of each. As to purpose, the aim of experience is practical activity, but knowledge is an end in itself and exists without reference to the material world. As to means, experience is physical while knowledge utilizes the mind. As to locale, experience takes place in an imperfect world, but knowing in a world of the mind which is complete and comprehensive in itself. As to result, experience is palliative while knowledge leads to eternal truth.⁵⁷

Dewey shows that the natural revolt against this doctrine, which came at the beginning of the modern age, went

to the other extreme of sensationalistic empiricism. Experience was regarded as consisting of cognitive factors and their passive reception as isolated sensations. Since this view omits the active and emotional elements which are inherent in true experience, it failed to effect a thoroughgoing educational reform and succeeded only in improving method in the direction of reducing verbalism in teaching.⁵⁸

Dewey proposes destroying the distinction between knowing and doing, between the rational and the practical, by a realization that an educational experience consists of a "combination of what things *do* to us . . . in modifying our actions . . . and what we can do to *them* in producing new changes."⁵⁹ We have learned from science that experience should be experimental. Experience is no longer a matter of the past alone, a record of what has occurred; experience concerns itself equally with what will happen in present and future under given and controlled conditions. Experience as experimentation is a trying, an attempt with an aim. It, therefore, becomes rational, and the antithesis of empiricism *vs.* rationalism becomes meaningless.⁶⁰

The educational implications of the above are three-fold.⁶¹ In the first place, from the nature of experience itself, it may be said that experience consists of an interplay between a human being and his environment. Experience has an inner and an outer aspect, and the experiencing pupil, therefore, increases his store of knowledge both of himself and of the world about him. Secondly, as to method, it follows from Dewey's view of the identity of knowledge and experience, that the activities through which pupils gain experience should not be chance activities but should be carefully selected for their value in increasing pupil powers of mind and body. Furthermore, according to Dewey,⁶² knowledge can come only as a result of doing. The essence of the laboratory method of science is that men alter the factors of the experiment—that is,

they *do* something—when they want to find out what the result will be—that is, when they want to *know* something. Finally, as to curriculum, it follows that there is no antithesis between the intellectual and the practical subjects, but that each type of study is related to the other. Hence many subjects such as the study of production, consumption, distribution and communication, often thought of as having only a practical value, are indeed equally valuable in enabling the pupil to understand himself in his relation to the world about him.⁶³

Dewey's argument and conclusions almost exactly correspond with those we have traced in our study of the activity school. The single point of disagreement, if it really be so, arises from Dewey's dictum that all knowledge came as a result of doing. The activity school, as we have described it, would take exception to this unless it be postulated, as the activity school insistently does, that *doing may be purely mental* at times—that the essence of activity, or doing, is not that it is physical, but that it is purposive human effort to overcome either a physical *or a mental* resistance. But from other things that Dewey has said—for instance, from his analysis of the process of thought—we may safely conclude that Dewey includes purposive thinking as “*doing*” in the sense in which he uses the term in the foregoing passage. The disagreement, therefore, vanishes, and the agreement between activity pedagogy and Dewey becomes complete.

As long as seventy years ago Diesterweg's contrast between the old and the new school uses almost exactly the same words as Dewey does in *School and Society* in expressing the same ideas. Like Dewey, activity pedagogy warns against the reaction against theoretical learning which has swung to the extreme of discarding the book, of discarding “learning” in favor of “*doing*. ” The activity school is forced to reject Lay's *Tatschule* as the form of general education, and insists that there is no necessary conflict between learning and doing. The activity school,

like Dewey's progressive school, would combine learning and doing into an intimate and indissoluble union, as is already the case in scientific research, as Dewey has pointed out, and in the best kindergarten practice, as we have seen. Dewey views the problem from above, and describes desirable characteristics of education; the activity school, closer to the ground, proposes that activity pedagogy is the way to achieve these desirable characteristics in an educational system. The point of approach differs from that of Dewey, but there is complete agreement in principle.

4. Naturalism versus Humanism

Dewey next attacks the antithesis which used to exist between naturalism and humanism, but since the issue is dead we need not long detain ourselves over it. The natural sciences—indeed, science in general—no longer need to creep surreptitiously into the curriculum, but are as well established as the humanities. In fact, the present tendency seems to be to relegate the humanities, insofar as these are linguistic studies, to secondary place. Dewey makes the point⁶⁴ that the antithesis was based on the conception that the world of nature and the world of human (social) affairs were two different worlds, and that certain subjects, the sciences, treated of phenomena in the one realm, and certain other subjects, the humanities, treated of phenomena in the other. Actually there is a close interdependence between our social concerns and the methods and results of science. Education should aim at teaching science and human affairs together, to the mutual benefit of each. This is more easily done today than ever before because our entire industrial and social organization is based upon applied science. It is, therefore, possible to utilize the basic occupations of mankind as curricular material through which pupils at the same time become familiar with the problems of human beings engaged in social activities and the principles of science in application

to human uses.⁶⁵ There is therefore no valid distinction between science and the humanities, for both concern man. Every subject which enables man to better his lot or which increases social sympathy is humane.⁶⁶

With regard to the foregoing section Dewey is completely supported by the theory and practice of the activity school. Because it believes, as Dewey does, that both scientific (nature) and human material should be utilized from the earliest grades and in intimate connection with each other, it has advocated an undifferentiated course of study for the first three years in which the scientific and the human are blended into a common, integrated unit of instruction.

5. The Noumenal and the Phenomenal World

In the last chapter, in discussing Dewey's educational philosophy, we noted his peculiar definition of knowledge as consisting, not of information or truth stored in the mind, but, of a process, the interaction of an individual and his environment. It follows from this concept of the nature of knowledge that the distinction between the noumenal and the phenomenal world is meaningless. Dewey denounces this particular dualism as especially invidious in that it gives rise to the antithesis between subject matter and method; it causes us to regard interest as something belonging only to the noumenal world and as having no intrinsic connection with the material studied; it leads us to "an erroneous conception of the relationship between individuality or freedom and social control and authority."⁶⁷

a. Subject matter, method and interest

The ideas of the founders of the activity school in this connection are very different. The vast majority of philosophers and educators accepts the distinction between the inner and the outer world, and accepts also the usual concept of knowledge as truth stored in the mind. But

this does not lead to an antithesis between subject matter and method; on the contrary, the activity school completely agrees with Dewey that subject matter and method are one, as we have already seen. On the other hand, Dewey is right when he says that the distinction between the outer and the inner leads one to regard interest as belonging to the latter. Educators generally regard interest as an ingredient or aspect of the interest-emotion-will complex which together form one category or department of the mind. It is true, of course, that the mental categories are not sharply set off from one another, as we have indicated in our discussion of the cognitive steps. The activity pedagogue attempts no defense for his acceptance of interest as a mental phenomenon; it is the usual, almost universally held, view of interest. But it is hard to see how Dewey can maintain that "interest has an intrinsic connection with the material studied" in face of the fact that what is interesting to one man is completely without interest to another. Of course, in every case one has to be interested in something; one isn't just interested. This acceptance by activity pedagogy of the distinction between the outer and the inner world and the classification of interest as a mental phenomenon will lead to differences with Dewey with regard to the problem of freedom and control, as we shall see.

Since we have already considered Dewey's ideas regarding the essential unity of subject matter and method, also his teaching regarding the nature of interest and its relation to discipline, it will not be necessary to repeat them at this point. Similarly, it will not be necessary further to labor the point that Dewey regards everything—philosophy, aim, subject matter, method, values and outcomes of education—from the social point of view. The close relation of knowledge to social interests is inherent in Dewey's definition of knowledge and his description of how it is gained. There remains for more careful consideration his final objection, that if the individual and the world be re-

garded as separate entities, the relationship between "individuality or freedom" on the one hand, and social control and authority on the other, is lost.

b. Freedom and social control

It is important to call attention to the fact that Dewey speaks of "individuality or freedom"⁶⁸ as synonymous. That he so regards these terms is again shown in the expression⁶⁹ "practical individualism, or struggle for greater freedom of thought in action". . . In other words, for Dewey the problem of the relationship between individualism and socialization in instruction is really a problem of the relationship between freedom and social control. But this is not the way in which educators view the problem of individualization of instruction. For most educators, individualization is largely a matter of method; it involves selecting the method or methods best fitted for the individual child, of selecting subject matter which has a peculiar interest or value for the individual, of giving the individual opportunity to discover and develop his native talents. But for Dewey, on the other hand, individuality seems to be closely related to forms of control. "Regarding freedom, the important thing to bear in mind is that it designates a mental attitude" . . . he says.⁷⁰ And in another place, he adds: "The only freedom that is of enduring importance is freedom of intelligence, that is to say, freedom of observation and of judgment exercised in behalf of purposes that are intrinsically worth while. The commonest mistake made about freedom is, I think, to identify it with freedom of movement."⁷¹ On the other hand, freedom of movement is an essential part of intellectual freedom, even though pupils far enough advanced to get learning from symbols (by means of reading) show little perceptible overt activity.⁷²

The activity school agrees with Dewey that there should be physical freedom of movement in the schools and advocates it for the same reasons that Dewey gives.⁷³ When

the pupil's activity is unrestrained by outward controls, the teacher can observe the pupil, gain a better insight into his aptitudes and characteristics, and hence can make a better selection of material fitted for the child's special needs. Furthermore, by allowing freedom of movement to the pupils the classroom situation more nearly approximates normal out-of-school conditions with an accompanying gain in pupil sense of the worthwhileness of their activities. This in turn fosters an increased efficiency in the learning process. Finally, freedom of movement means better health for the children.

In his chapter on the meaning of purpose Dewey says that that individual is free who pursues activities for ends of his own. This idea he repeats in somewhat different words in his discussion of individuality and freedom: "One is mentally an individual only as he has his own purposes and problem, and does his own thinking."⁷⁴ The phrase "think for one's self is a pleonasm. Unless one does it for one's self, it isn't thinking."⁷⁵ But a person who is thinking for himself, working on his own problem, although he is completely an individualist and free, is not therefore free of all control. Control is always exercised in one way or another.⁷⁶ The individual is not free when that control is arbitrarily, personally exerted from the outside by another person;⁷⁷ the individual is free when the control is exerted impersonally, by the entire group of which the individual is a member, and arises as an inherent part of the activity in which the individual is engaged.⁷⁸ Individual freedom, therefore, means willing cooperation with a group in which the group purpose exercises control over the individual. Within the bounds of the social purpose the individual exercises mastery over his acts, choosing them judiciously with a view of their probable consequences, observing their results, modifying his further acts in light of what has been thus far accomplished, assuming responsibility for the results of his actions, and persisting in his efforts until the social purpose has been achieved.⁷⁹

In the above passage Dewey seems to condemn all forms of arbitrary control, although we have seen in the last chapter that he admits that arbitrary control may sometimes be necessary to save the pupil from the results of his own acts. The activity school goes a step further in its acceptance of arbitrary control. In our discussion of the natural development of the child, the central idea of the thorough-going individualist in education, we have pointed out that the child may develop naturally in quite undesirable directions. We are, therefore, led to reject a pure hands-off policy, and advocate the direct imposition of arbitrary prohibition of socially undesirable conduct. Of course, the entire discussion of positive and negative hodegetics amply demonstrates that the activity school prefers stimulating to good conduct and giving frequent practice therein to negatively inhibiting the bad.

However, activity pedagogy does not take individual freedom and social control to mean that the teacher abdicates her authority. The activity school warns against two vicious doctrines which sometimes result from unrestricted "individual freedom": first, the notion that a law has no application to an individual who did not take part in formulating it; and secondly, the equally erroneous idea that what is decided by a majority is necessarily right. Our appreciation of the control that arises spontaneously out of the nature of the work and the conditions and wishes of the social group is quite as great as Dewey's; but this does not imply the surrender of teacher authority or responsibility.

Dewey notes in his *Experience and Education*⁸⁰ that the form of control exercised by the group is sometimes conventional. For instance, in playing games there are conventional rules of the game which must be observed by all individuals engaged in it if the game is to be played at all. Similarly in school there are social conventions of good manners, the forms of politeness and courtesy. Such conventions are no mere formalism but a means of ready con-

tact and communication with others. They inhere in the social situation to the same extent that they would if they had been freshly devised by the social group to determine the conditions of its present activity.⁸¹

With the above analysis, most educators would undoubtedly agree, although it is not essential to activity pedagogy. But Dewey's concluding remarks about individuality again bring out the difference between activity pedagogy and his point of view. Dewey believes that individuality or freedom is educationally valuable because it takes the form of variations of point of view from person to person. Through individual variation comes social growth.⁸² In other words, Dewey values individual differences because such differences are useful to society. The activity school, on the other hand, values and respects such differences because they are inalienable rights of the individual and enhance his dignity and worth *as an individual*.

6. Vocational and Cultural Education

"The intellectual presuppositions underlying the oppositions in education . . . culminate in the antithesis of vocational and cultural education."⁸³ Actually, the antithesis of vocation is a parasitic existence of dependence upon others. Furthermore, the individual is not confined to a single vocation but usually is capable of functioning effectively in more than one.⁸⁴ Usually each person has one chief activity, from which he derives economic independence; he is, nevertheless, a member of many kinds of social groups in each of which he must play his part. Indeed his effectiveness in his chosen vocation—be that a vocation of business, of art, or science, or of the professions—very often depends upon his effectiveness as a member of other social groups.

Education should have a vocational aim and value—of the proper kind. It should find out what each one is fitted to do, and give him an opportunity for doing it. In this way the happiness of the individual is served, at the same

time that society is assured of getting the best service the individual is capable of performing. But this process of discovering for the individual what he is best fitted for is not to take the form of dictation from above; on the contrary, the process should take the form of a multiplicity of opportunities in each of which the individual tries himself. Then, when he has found an interest, and when the school has discovered for him a native ability, the vocational aim will act as a magnet to attract and fix new knowledge which becomes organized about the vocational interest in a natural complex. The method for discovering aptitudes, since it is part of education to perform this function, is the method of education itself—a training *for* occupations *through* occupations, or activities, as Dewey has consistently advocated. But vocational training through occupational activities should be indirect rather than direct. Not pre-determination but discovery should be the watchword of vocational guidance.⁸⁵

Dewey next points out that the antithesis between vocational and cultural education, in the traditional schools, has been more apparent than real. An educational regimen which aims to fit young people for service in the professions—law, medicine, teaching, literature—is often classified as non-vocational education, but a moment's reflection will convince anyone that actually such training is definitely vocational in the correct sense of the word. Similarly, the liberal education which is sought by members of the economically independent class in preparation for a life of social leadership, or of management of financial affairs, or even for a life devoted to maintaining social prestige—even such education has become vocational in fact, if not in theory.⁸⁶ The danger is not that we do not give vocational training at the present time, but rather the fact that we have come to think of vocational education as merely education for a trade. The danger is, according to Dewey, that education therefore becomes an instrument for perpetuating present societal forms instead of a

means to better social organization. Such social improvement will take place, according to Dewey, when the activities of vocations are made the subject matter of education, not with the intention of teaching them as training for a determined future life-station but for the sake of their moral—that is, social—and intellectual content. In this way the pupil's future vocation will not be predetermined for him, but he will have a wide variety of choices, and he will be enabled to discover for himself what his aptitudes and interests are. He will thus serve society in the vocation which he finds most congenial to himself; being happy and uncoerced he will render better service to society.⁸⁷

When we turn from Dewey to the activity school we note that the attitude of the latter has already been stated in connection with Dewey's attack on the labor-leisure dualism. Indeed much of what Dewey says concerning vocational versus cultural education is implied in his former analysis; there are, however, some added details.

Dewey's suggestion that the pupil be subjected to a large variety of vocational influences and activities so that he may find himself, is in line with the suggestion of activity pedagogy that general, not specific, vocational skills be made available for all pupils. The activity school believes, with Dewey, that the choice of specific vocational training must be voluntary on the part of the pupil, not dictated in a misused "guidance program." Dewey adds that when the pupil discovers his vocational bent he will organize his own studies and activities about his central vocational interest. This is a pretty general statement; the activity school is more specific. It calls for an educational program which starts with an undifferentiated, integrated, or unified subject. This gradually polarizes about human and nature materials; each of these in turn differentiates further in the middle grades, and so differentiated curricular subjects emerge synchronously with the pupil's growing ability to think synthetically. During this entire period—the primary and middle grades—the method is heuristic,

and the subject matter is pedagogical activity. With this method and matter, *general* vocational skills are inculcated, which are conceived of as being both practical and cultural. The entire experience of the pupil, through the application of activity as subject and method, is exploratory of his own talents and aptitudes, so that when he reaches the intermediate grades he can switch off to special vocational schools for specific instructions, if he has already found his bent, or he can continue into the intermediate grades in what we would call a "general course," where the process of analysis of subject material into curricular subjects continues, while at the same time widening fields of activity make possible further exploration. It will be seen that this program is completely in agreement with Dewey's; its more detailed nature arises from the fact that the activity school has to concern itself not only with general aims, but with the details of organization which would make the achievement of these aims possible.

Dewey's shrewd analysis of the education of the wealthy classes, as essentially vocational, finds no explicitly stated counterpart in activity pedagogy. However, this would tend to destroy his argument against the danger that vocational education, in practice, is likely to be merely trade education and, as such, would tend to perpetuate the present social system. Activity pedagogy admits the danger, but mitigates it by providing a general education for each individual which is to be carried on to a point as far as the individual's abilities and capacities will enable him to reach. During the time of general education, only general vocational skills are taught, and this fact, we believe, has two advantages: first, it will enable the special vocational training institution to begin immediately with specialized vocational training instead of having to begin with the development of basic, underlying, unspecialized vocational skills; secondly, such general vocational skill will result in raising the efficiency of all, whether destined for the professions or not, and will inculcate in all an enhanced appre-

ciation for the dignity of labor and the material products of labor. Let it be admitted that the vast majority of pupils in the schools are going to earn their livings through some form of trade. Since this is going to be the case in the present as well as in any conceivable future society, it seems the part of wisdom, as of justice, to increase the efficiency of this majority in the vocational fields of individual choice. The further charge that such an educational system will tend to perpetuate present societal forms we may as well meet with the frank admission that this is true. But the chief duty of education, according to the activity school, is to the individual rather than to society ; and the only way to improve society is to improve the individuals which compose it. Hence again, the aim of ideal manhood.

7. *Summary*

The activity school agrees with Dewey that the outcomes of education are values which may be intrinsic or/and instrumental (absolute or/and relative). The former consist of the satisfactions which are derived as a result of the immediate activity ; the latter of knowledges, skills, attitudes, which will be instrumental in enabling the student to engage successfully in subsequent activities.

These values, says Dewey, can be achieved only if education is freed from the shackles of a dualistic educational philosophy which nullifies educational gains. Education is not to prepare men for a life of labor *or* leisure, but for *both* ; for as society progresses, the laborer will be given greater leisure through the advances and achievements of science. Secondly, the conflict between experience and knowledge must be abandoned, for all knowledge is based upon experience. Indeed it is the business of education to select and arrange those experiences for the pupil which will result in the greatest gain in knowledge. Thirdly, for this purpose, the humanities and the sciences are equally valuable. This distinction between them lapses because both concern man and his doings ; both have social impli-

cations, and, hence, both are humane. Fourthly, in order that society may gain through variations among individuals, the individual must be free to pursue his own ends unhampered by arbitrarily imposed external control.

Dewey differs from the activity school in that the former believes that the dualism between the outer and inner world must be broken down in order that social control, the only kind of control consistent with freedom, may become the only kind of control exercised over the individual. Activity pedagogy, on the other hand, holds to the traditional distinction between the inner and outer world, and views arbitrary control under certain circumstances as entirely consistent with true individual freedom. It agrees with Dewey that social control is normally preferable to arbitrary control and that social control can arise only in social activity.

Lastly, it must be recognized that the vocational aim has a place in education. But the vocational outcomes should be broad, indirect, and such that a better social order will result, based upon a state of affairs in which each individual will do the thing he is best fitted for, thereby living a vocational life conducive to the happiness of the individual, and of the greatest service to society of which the individual is capable. While there are minor differences between Dewey and the activity school the attitude of both with regard to vocational training is in fundamental agreement.

D. SUMMARY

In this chapter we have compared Dewey's ideas on method, subject matter, and outcomes of education with the theory and practice of the activity school.

With regard to method: Method and subject matter are inextricably related; method may be either general or individual; general methods consist of practices found useful in the past, but care should be taken not to let methods dominate the educational process; individual method is dif-

ferently viewed, Dewey characterizing it by its results, the activity school by its processes; method is closely related to discipline, but while for Dewey discipline and interest are one, the activity school regards discipline as part of the larger field of moral training; method boils down to teaching the pupil to think—a process which Dewey describes in his own way, but in essential agreement with activity pedagogy.

With regard to subject matter: Subject matter is everything connected with educational experience; subject matter is of three kinds—skills, knowledge of things, ideas—but, while, for Dewey, these kinds are also levels of learning, the activity school thinks of them as united on all levels; subject matter should be presented in units of activity; the social sciences should be stressed; subject matter should be presented psychologically instead of logically; knowledge logically arranged is science.

With regard to the outcomes of education: these are intrinsic or instrumental values; they fit men for labor and leisure, for doing and knowing, for vocation and culture, they are humanistic and scientific. They result in individual freedom, but the activity school and Dewey differ as to the meaning of individual freedom; according to Dewey, they result in improvements in society, but according to the activity school they result in improvements in the individual.

CHAPTER XII

CONCLUSIONS AND RECOMMENDATIONS

In the last two chapters we have traced in considerable detail the points of similarity and difference in Dewey's philosophy and that of the activity school. The present final chapter is an attempt to extract a profit from our study — an educational profit that is expressed in terms of conclusions which we may regard as established on valid grounds. But we should be forgetting everything that we have said with regard to conclusions, if we fail to realize that the process of drawing a conclusion is necessarily a personal matter and very different from the impersonal and objective process of gathering facts. The reporter becomes editor when he draws a conclusion from the evidence he has gathered; as long as human beings remain human beings, that is individuals, so long will there be differences in conclusions drawn by different individuals from the same set of facts. The wise editor, therefore, will let his readers know not only what the facts are, but also the point of view from which he approaches them. Only thus can he hope to "carry his readers with him."

In the present case, the facts — the evidence — have been assembled in the eleven chapters preceding. Let us examine this evidence in rather large units so that the conclusions we reach may be important, significant in many situations, and have a wide field of applicability. For, if we sift our evidence too fine, if we make our thought units too specialized and restricted, we will indeed run less danger of having our conclusions disputed by another, but we will suffer the greater disadvantage of having our conclusions unimportant, insignificant and of little applicability. In short we will have lost sight of the forest in our study of the trees. In this spirit we confine ourselves to half a dozen "conclusions"; perhaps it would be better to say

that as a result of our study we have acquired certain attitudes toward characteristic, large-unit, educational problems.

A. CONCLUSIONS

1. *As to the Meaning of Activity Education*

The first conclusion is:

That it is possible to describe with definiteness and clarity the nature, purpose and functions of the activity school.

We have followed in some detail the history of activity pedagogy from the beginnings of modern education to the present. We have found the genesis of the activity movement in the work of the great giants of pedagogical history—Comenius, Rousseau, Pestalozzi and Froebel. We have seen that activity pedagogy, rightly considered, is not something new but rather a return to Pestalozzianism. We have traced the modifications which lesser educators have made in our educational process, noting how these modifications affected favorably or unfavorably the emerging concept of what activity education is. We have thereby been enabled to define *the activity school* as that type of education which, through activity pedagogy, makes the widest possible use of the principle of pupil self-activity in the teaching process. In turn we have defined *activity pedagogy* as pedagogy which utilizes pupil self-activity in two ways: as subject matter, and as a principle of teaching. The former is *pedagogical activity*, and may be defined as any application of human effort, either physical or psychophysical, to overcome resistance, through which cultural values are created. The latter is activity methodology and may be defined as the systematic stimulation of pupil self-activity, physical or mental, in all learning situations. We have called this method, *heuristics*. Each of our definitions has been genetically derived and developed, and the validity of each rests upon historical and pedagogical data.

2. As Regards Aim

The second conclusion is :

That the determination of an appropriate aim is a necessary step which must be taken if any educational system is to achieve effectiveness.

At first blush this seems like a truism—a conclusion about which there never was any doubt. But we have seen, Chapter X, how Dewey declares that education hasn't any aim, although he later found his own position untenable and proposed the aim of education of "social efficiency broadly considered." But no matter how broadly one may consider "social efficiency" the underlying assumption is the collectivistic concept of man; that man is first of all and before everything else a member of a society. In this we cannot agree with Dewey, and we regard man, first of all and before everything else, as a rational individual, "endowed by his Creator with certain inalienable rights." We have therefore proposed the aim of the ideal man as the proper aim for education; certain it is that, insofar as man is also a social being, the aim of the ideal man includes the aim of "social efficiency broadly considered" and is therefore superior to it.

Dewey's aim is social amelioration, the constant improvement of society, and education is charged with the responsibility for bringing such improvement about. Education is to be reconstructive of society, and the teacher must know how such reconstruction should take place so that society will constantly improve. A large order, at which many a practical pedagogue stands aghast in his humility and the consciousness that all human wisdom is not encompassed within his modest skull. Perhaps, viewed rightly, our aim of the ideal man is just as large an order; certainly it is as impossible of fulfillment. But at least the teacher has a child before him, not an abstraction which we call society. At least the pedagogue knows that his

job is to magnify that child's powers and capabilities in every direction ; in health, so far as the physical body is concerned, and in the threefold ideality of the mind—beauty, truth and virtue. And our pedagogue has this great advantage over Dewey's pedagogue : he knows that the perfect society will come, when the perfect man comes, that the perfect society is but a function of the perfect man ; while Dewey's pedagogue must grope stumblingly toward a perfect society without knowing what that perfect society is. No one has yet depicted the perfect society ; the wisest have tried it with the poor result that a modern high school boy can tell Plato where he is wrong.

The aim of an educational system is the focus upon which all its processes converge, for the aim alone gives meaning to the process. Dewey's aim is social, and his processes, therefore, are all "social-centered" or "society centered." But society has in it, inherently and ineradicably, the principle of the aggregate ; it lives by cooperation, by conformity, by the subordination of the individual. The social aim is naturally and inevitably antithetical and antagonistic to the individual aim, for the individual lives as *an individual*, not by conformity as such but by the virtue that is in him, which is liberty. Dewey thinks of his aim as democratic, he thinks of his educational system as one designed for a democracy ; actually he is constantly requiring more and more cooperation of the individual with others, and cooperation that is required is really subordination. Dewey glosses over the fact that social co-operation is required of the individual by emphasizing that such control is impersonal, and inheres in the situation ; but it remains true, nevertheless, that the individual is required to conform. The social aim tends to be collectivistic whether the iron fist or the velvet glove is exposed to our gaze.

It would seem the part of wisdom, therefore, to leave to the sociologists the problem of making suggestions for

the improvement of society, and to assign to pedagogues the duty of making the best possible product of the child. Such an attitude is no negation of democracy; on the contrary, since democracy is the only form of government and way of life under which the advantages of individualism can function, the development of better and better individuals will strengthen the forces for democracy at the same time that the institutions of democratic society are being constantly improved through an emerging better Man.

Nor will our ultimate aim, the development of the ideal man, nullify the usefulness or effectiveness of the work of educators who, all over the country, are formulating "objectives" for education.¹ Such objectives are partial aims; their value is determined by their effectiveness in advancing us in the direction of our ultimate aim. The teachers, supervisors and state officials who selected these in a democratic manner and after conference and consultation, did so only recently, and there is no reason why a subsequent meeting of educators may not attempt to improve upon these objectives. But the ultimate aim—ideal man—stands constant, and should give direction and purpose to future as to past deliberations. The ultimate aim must survive time and situation. Education is for everybody, for every individual, to make him stronger, healthier, more appreciative of truth, beauty, and virtue, more able to understand, to reason, and to practice the good.

3. As to Individualization of Instruction

The third conclusion is:

That true individualization of instruction consists, not in letting the child decide for himself what he wishes to learn, but in adapting the didactic process to the child's individual physical, mental and emotional characteristics.

Of the need for individualization in instruction there is no longer any doubt, and it is not the least of Dewey's

educational accomplishments that he has brought home this need to the awareness of our teachers and administrators. But the growth of large urban populations and the ever increasing size of our school organizations have militated against our meeting this need. Classes tend to get larger, pupil period loads increase from year to year. The proponents of individualization of instruction are put to it to devise means whereby individualization can take place.

Their answer generally has been along one or both of two lines: modification of curriculum, or modification of the teaching process and the educational setup. Dewey recommends both measures in that he suggests that all activities of instruction be initiated by the pupil and carried out in a cooperative social unit in which each individual does that part of the common task for which he is best fitted. But while we agree that it is possible to a certain degree to modify the curriculum in favor of individualization of instruction, we cannot agree that such modification of curriculum is the only, or the best, means of bringing about the individualization of instruction which we desire. We find our suggestions for individualization of instruction centering about organization and method, rather than about curriculum. In other words the teacher in an activity school must know his pupils so well that he can adapt the method of activity to the particular mental type to which the individual pupil belongs.

True individualization must be a possible and practical individualization; it is useless to point out that individualization of instruction is completest when the teacher has only one pupil. The fact is that classes must always remain comparatively large groups and that a program of individualization of instruction must accommodate itself to this permanent condition. The teacher should utilize his knowledge of the memory, perception, imaging, or other types to which the individual pupil belongs by modifying the forms of the lesson to suit the type. We must reject Dewey's suggestion for achieving individualization at the

cost of sacrificing the curriculum; on the other hand, the individualization which comes through setting up smaller groups within the class and allowing each individual to function in the group to which his aptitudes are of greatest value, is thoroughly practical and desirable. Individualization in instruction, in a large city system, must be the individualization which comes through modification of the didactic processes and the organization within the class into communities of work.

There is, however, one curricular aspect to this question of individualization of instruction to which reference should be made. This is what we have called the principle of differentiation — the variation in selection of curricular material in accordance with the local environment of the child and the school. To this extent we approach the problem of individualization of instruction through the curriculum, in agreement with Dewey's suggestions. However, the adoption of the principle of differentiation as a principle of curricular selection is not the same thing as Dewey's more radical suggestion to let the child select his own curriculum by initiating all the activities of which the curriculum consists. It still remains true that the approach to individualization of instruction must be mainly through individualizing the method rather than the curriculum.

4. *As to Curriculum*

The fourth conclusion is :

That while frequent revision of the curriculum is necessary so as to keep it abreast of the times, revision must not be understood to mean abandonment of a prescribed curriculum.

It is generally admitted by almost all educators that the reaction against the old curriculum of the elementary school, which consisted of the three R's and nothing else, has led to the opposite error of a presently overloaded cur-

riculum. Suggestions for simplification, however, seldom take the form of dropping subjects entirely, for as each new subject was added, it developed among teachers a group of enthusiasts who are quick to point out the value of the subject whenever it is suggested that the subject be eliminated. Most suggestions for curricular changes, therefore, sidestep the issue of direct elimination by proposing that various subjects now present in the curriculum be combined—or integrated. Integration, or the teaching together of related material, even when such related material falls into several curricular categories, has become, in fact, the greatest factor in producing curricular revision.

We have agreed with Dewey on the need of a thorough-going integration, especially in the primary grades. But Dewey proposes a radical revision of the curriculum by suggesting that all the units of activity (curricular material) be suggested and initiated by the children. This is, of course, equivalent to a complete abandonment of prescribed curriculum. In a small school, with select children, and a large staff of teachers—in short, under ideal conditions—such a proposal might work. But in large organizations, with large classes, with children of every degree of mental and physical endowment, with shifting school populations—in other words, under practical everyday working conditions—such a proposal would be educationally suicidal. A prescribed curriculum is an inevitable consequence of mass education, for mass education necessitates organization. We must reject all proposals to abolish a prescribed curriculum so long as modern education remains mass education.

Dewey is led to his proposal for the virtual abandonment of the curriculum by his emphasis upon the idea that education is life, not preparation for life. It is true that he admits that education is also to some extent preparatory for life, but this afterthought is never developed into a programmatic suggestion. On the other hand, the converse that education is life, is, with Dewey, a dynamic idea

which motivates the suggestion to abandon curriculum. He is, of course, perfectly right when he says that if a curriculum is followed, it must be a curriculum selected by adults who are thinking of the child in terms of what he is to become as well as of what he is at present. Such selection of curricular material by adults Dewey regards as a great wrong to the child.

Dewey was never confronted with the problem of organizing mass education; his only direct experience was with the University School of Chicago University, where, with select pupils and a very large staff of teachers for the number of pupils enrolled, he found it possible to maintain educational standards with an informal organization without prescribed curriculum. But no one who has ever had any experience in a large city school system would believe that standards could be maintained without a prescribed curriculum. Furthermore, it is a fact that public distrust of progressive educational procedures centers about the popular suspicion that proper educational standards are not being maintained. It would appear the part of wisdom for educators, therefore, to retain the prescribed curriculum.

But this attitude does not mean that the curriculum should not be made flexible and be from time to time revised. We have suggested a single undifferentiated course for the first three years with complete integration of instruction in skills, tool subjects, knowledges, attitudes and appreciations. But the teacher who teaches this integrated, undifferentiated subject should have before her a prescribed curriculum telling her how much reading, number work, etc. she is expected to cover in a given unit of time. We might profitably determine the number of minutes of the undifferentiated integrated instruction which should be devoted to each of the curricular subjects. We ought to abandon the formal program of periods, but not the course of study or the curriculum. As the pupil ap-

proaches the fourth year, the integrated instruction of the first three years will tend to polarize about two nodes—the human and the non-human (or natural). Instruction on the fourth year level begins with two subjects—man and nature—and, as it proceeds through the middle grades, more and more separate curricular subjects will emerge through natural differentiation of material and polarization about characteristic nodes. By the time the pupil reaches the secondary school (seventh year) the traditional curricular subjects will have emerged.

Before we leave this matter of curriculum, it would be well to note that the difference between Dewey's view and the one here advocated is one of means rather than ends. Dewey advocates the informal organization of no prescribed curriculum; this we must reject as unsuitable to mass education as it is found in American cities. On the other hand, Dewey expects his charges to learn to read, to write, to figure; he recommends that greater emphasis should be placed upon science and nature; he wishes to maintain and improve standards. If we reject Dewey's position on the curriculum, as we do, it is only because we realize that the informal organization that he advocates will not be conducive to maintaining the very standards that Dewey himself would expect.

5. As to Discipline and Moral Training

The fifth conclusion is:

That socializing the method and processes of education, although admittedly a valuable aid, cannot be our sole reliance in moral training.

Educators generally admit that character training is the most important outcome of education. But the progressive school, influenced by Dewey, believes that character will be developed as the result of a system in which con-

trol over the individual is exerted "impersonally." By "impersonally" is meant that the control is exercised, not by one in authority over the pupil, but by the social group of which the individual is a part, and that this control rises spontaneously out of the nature of the activity in which the pupil is cooperatively engaged with others. That this form of control is excellent, that this form of control should be the normal situation in a classroom, is certain.

But character has been defined as the habitual choosing of the morally good. It is over the meaning of the word "moral" in this connection that there is dispute. Dewey cuts the Gordian knot by boldly proclaiming that what is social is moral; that he who acts socially, that is, in co-operation with his fellows, acts morally; that there is no other morality than the kind that meets the pragmatic test of working in a social situation. It would be an understatement to say that America generally does not agree with him, that America is not yet prepared to abandon its belief in the validity of ethical and religious sanctions for morality. True morality, according to this view, sometimes requires the individual to defy society, to act contrary to it, to refuse to cooperate. The doctrine that to act socially is to act morally is so frequently followed by two unjustified errors, that we might almost speak of the errors as concomitants of the doctrine. These are: first, that unless the individual has had a share in determining the law, the form of control, such law has no applicability to him; and, secondly, the converse, that whatever is the will of the majority is, therefore, right and must be obeyed. The moralist of the old school, who goes to ethics and religion for his sanction, categorically denies both of these.

It is admitted that practicing the good is a better form of moral training than merely inhibiting the bad. Dewey is right in pointing out that the traditionalists made the mistake of thinking they could inculcate the good largely by precept, and that they were forced to inhibit the bad

so often and vigorously because they did not give sufficient attention to the practice of virtue by the pupil in actual life situations, as opposed to having the pupil learn intellectually what good conduct is. But from these observations he concludes that all precepts are useless; educators generally demur. Dewey would have the pupils discover moral, that is, social, truths for themselves. But moral conduct is a good in itself whether understood by the pupil or not, for repeated moral conduct tends to establish a habit, and the pupil is more apt to discover the moral cause underlying moral conduct if he is already practicing moral conduct than he would be if he is expected first to discover the moral truth for himself before conforming to it. We must insist that the teacher is evading his responsibilities as teacher, if he does not exert control over the pupils in the direction of moral conduct; that imposed conformity to moral standards is *per se* no infringement of the liberty of the individual, when that individual is an immature child. Children expect guidance, like it, and benefit by it. When they have reached moral maturity, that is, when they have integrated their personality to the extent that they have adopted for themselves a moral code, when, in popular phrase, "their characters have been formed," then they can decide whether, in a given situation, true morality for them means to comply with or to resist the demand for conformity to a social law.

From all the foregoing, it seems clear that educators should hold fast to the moral sanctions found in ethics and religion. This does not mean that educators are to neglect the opportunity they have of teaching valuable moral lessons through socializing the process of instruction. Let the pupil learn moral conduct partly by precept but largely by practicing the social virtues in a social environment. Extraneous and arbitrary control, though it cannot be abandoned, is, after all, the exception rather than the rule in a well ordered educational system.

6. As to Opportunistic Teaching

The sixth conclusion is :

That opportunistic teaching must be the exception rather than the rule in an effective educational program.

This conclusion is related to, and grows out of, the conclusion already stated with reference to the necessity for a prescribed curriculum.

From one point of view, all teaching and learning in Dewey's system is opportunistic. The child engages in self-chosen activities ; when these happen to involve the elementary reading, arithmetic, or other basic skills, the child will become interested in developing them. The teacher seizes the opportunity to gratify the child's interest and so learning the skills takes place—opportunely. Now the advantage of this plan is that the pupil's motivation is of the very best, and other things being equal, learning takes place with least effort and waste. But the disadvantage is that there is no guarantee when the child will reach the point of developing spontaneous interest in any given bit of necessary learning.

From the point of view of the activity school it would be better, through curricular organization to retain the advantage of the excellent motivation while avoiding the disadvantage of postponing indefinitely the learning of necessary things until the child develops a spontaneous interest in them. We believe, with Dewey, in a curriculum of activities and in integrated instruction. But we differ from Dewey in insisting that the teacher's duty includes that of determining what the activities are ; in other words, we believe in a prescribed curriculum of activities. The able teacher is the one who so regulates matters that the child *believes* he has spontaneously suggested and initiated the activity ; that is the art of the teacher. But the prescribed activity must take place, not in the sense that any given "project" is prescribed, but in the sense that what-

ever the project is, it must be one which will give opportunity for teaching the prescribed amount of reading, arithmetic, nature, etc. From one point of view, this isn't opportunistic teaching at all; from another point of view it is, for we do not prescribe the when and where and how of the curriculum. Said in another way, it is opportunistic teaching in the sense that the prescribed learnings are taught within large units of time whenever the opportunity arises to teach them.

But the activity school also has place for a purer type of opportunistic teaching. This occurs when, through the dialogue type of recitation, an extraneous matter is brought in which arouses the interest or curiosity of the pupils. We can lay down no hard and fast rule; if the curiosity can be satisfied without breaking the unity and continuity of the whole activity, it is advisable for the teacher to seize the opportunity which excellent motivation furnishes, to gratify the curiosity and to do a bit of opportunistic teaching. But if the extraneous matter would lead the pupils too far afield, and the unity and continuity of the lesson be destroyed, the wise teacher will not break the lesson other than to note the question and promise to take the matter up at some subsequent time. Opportunistic teaching is thus seen to be a valuable type of teaching if used sparingly and with discrimination. It requires a masterly teacher to get the most out of this teaching technique.

7. As to Methodology

The seventh conclusion is :

That in the three forms of heuristic methodology, we have the clearest, most detailed, and soundest application of the pedagogical principle of pupil self-activity.

We have attempted in the foregoing pages not only to be as definite as possible in our description of the activity

school per se, but also to furnish the reader with a complete and reasoned account of its special methodology.

It was the lack of such detailed description that caused activity pedagogy to be interpreted in a confusing number of ways, and justified the procedures of men like Bobbitt, Olsen and Beatty who classify types of activity pedagogy in a series of ascending steps. Teachers who have asked what activity pedagogy is, have been told, more or less vaguely, that activity pedagogy consists of "activities." When they ask what activities, the books—pamphlets, state syllabuses, pedagogical works in the form of complete books—list a series of activities which have been found valuable or workable in one part of the country or another. One of the latest of these books, as this is written,² lists seventy-six such activities. But nowhere is found a statement of what activity methodology should be, regardless of what the special activity is that is being undertaken. We have, therefore, examined the methodology of activity pedagogy as such, so that the teacher may have a guide to methods of procedure regardless of what the activity is in which her class is engaged. Present activity pedagogy is largely a copying process; someone reports in an article in an educational journal that he has had good results with such or such an "activity," and immediately, all over the country, children are found "spontaneously" initiating the same activity. Nor should we condemn the teacher for, after all, no one has yet told her what *the general method of activity pedagogy is in its essence*. This information is now made available to us; it is analytic in that it divides pupil pedagogical activity into its three forms; it is synthetic in that it shows how these three forms are interrelated and must all be used in a completed activity; it is philosophic in that this method is based upon the fundamental sciences of psychology, biology, hygiene and other sciences basic to good method.

With this knowledge of what activity methodology is, teachers are liberated from the necessity of copying from

one another. So long as activity pedagogy is described only in terms of special activities which have been found to work in this place or that, activity pedagogy is localized to the grades in which the proposed activity can suitably be taken up. It happens that nearly all the suggestions forthcoming to the present time are rather simple suggestions suitable for activity units in the primary, and, to a lesser extent, in the middle grades; the result is that activity pedagogy is generally confined to the grades of the elementary school. But if activity pedagogy is really a principle of pedagogy, as the activity school pedagogues claim, then it must be applicable as a principle of teaching to all grades, on all levels. And it would be, if the teacher had an understanding of the universal principles of activity method.

It is, therefore, important that we recognize the fundamental necessity, for the activity school, of describing the basic principles of activity methodology, and of illustrating their application, on all levels, and in a host of different activities as we have done in activities connected with the general subject of geography. Such description and illustration should be made familiar to all teachers; incoming teachers should be taught activity pedagogy in the teacher training institutions, and in-service teachers should be given an opportunity of familiarizing themselves with this methodology by means of in-service courses.

B. RECOMMENDATIONS

As a result of our study of the development and present status of the activity school, and of the comparison we have made between it and the progressive type of education advocated by Dewey, and in view of the conclusions we have just formulated, certain supplementary suggestions seem warranted:

1. It would be of great advantage to the cause of education in the United States if we could come to some agreement in our use of educational terms. What is an

activity school; what is an activity; what is pedagogical activity; what is activity pedagogy? In this study we have attempted to give very definite meanings to these and other related terms, but, while for us these terms are all strictly definable, they mean different things to individual writers of educational works. Indeed so great is the confusion, that it frequently happens that the same writer will use such terms with varying shades of meaning within the same article. It has been justly observed that most of the disagreements in the world come from the fact that honest disputants use identical terms with dissimilar meanings. If we could avoid this logical error, if we could all agree upon our terms, much of the acrimonious debate, which at present engages the attention of American educators, would lapse.

2. Similarly we are in need of clarification of the concept expressed by the term "progressive education." Is this the same thing as "Progressive Education," or is the latter a more specific term and the former a more general one? What are the relations between the two? What are the relations between the activity school and each of them? Has Dewey's progressive education been repudiated by the Progressive Education Association, or is it the other way round? In how far has progressive or Progressive education in the United States actually led to the abandonment of curriculum, identification of moral with social ends, acceptance of meliorization of social conditions as the chief end of education? In how far have American educators rejected moral and religious sanctions; in how far has education become propagandistic; in how far has the pragmatic been substituted for the earlier philosophic basis for education? These are all questions of fact which research could demonstrate for us; if we had information on the status of American education involved in the answers to these questions we would be in a better position to judge in which direction American education is moving. But more important for us would

be the fact that we would be getting down to fundamentals and could take thought with ourselves whether the trend in education is a good one or not, and whether we should help the good work along or resist the encroachment of the evil.

3. The activity school regards itself as the necessary and legitimate form of general education. We have examined its claims throughout this study and have found these claims well founded. But we mustn't forget that the activity school is still, for the majority of American educators, a new thing. If we are convinced of the value of the activity school we would resent it if the traditionalists were to condemn it out of hand simply because it is new. Let us therefore not be guilty of the opposite error of hailing it as educational salvation just because it is new; nor insisting that it be adopted in its entirety overnight. The activity school need advocate no "Copernican revolution," as we have elsewhere said. It retains the good and the true in education which Comenius, Rousseau, Pestalozzi, Froebel and the others have discovered and applied. The new techniques, the new aims, the new methodology—these can all be gradually applied to the traditional school. We believe in our hearts that these techniques are superior to the old; let us be patient, therefore, for if our faith is well founded, time will vindicate our belief. Let us not become our own worst enemies, by belittling the accomplishments of the traditional school.

4. In the next place, let us be fair and abandon our silly little hypocrisies. The activity school believes that in the principle of pupil self-activity it has found the best means of furthering the educational process. But pupil self-activity doesn't mean, as so many of the misguided friends of the activity school are always proclaiming, that the pupils "spontaneously choose their own activities." What is the teacher for? Isn't it more sensible to tell the truth, that the teacher so manipulates the learning situation that the pupils will choose the activities which

the teacher has pre-selected for them to choose? Let us state frankly that we accept and acknowledge the necessity for a prescribed curriculum of basic skills, learnings, habits and attitudes which are to be learned by the pupil through his activities in school and outside. . .

The activity school believes in social controls of pupil conduct as the normal situation in a classroom. But this doesn't mean that pupils control the discipline of the class, that there is "pupil self-government." We may, if we wish, use the forms of pupil self-government, but the ultimate authority is that of the teacher as the representative of society. Instead of indulging in the hypocrisy of pupil control of discipline let us emphasize the *spirit* of democratic discipline through kindness, sympathy, reasonableness and humor. . .

The activity school condemns mere verbalism in learning. But this doesn't mean that there is no necessity for rote learning, and that drill, as such, has no place in an enlightened educational program. Instead of the hypocrisy of pretending that drill has been made unnecessary through opportunistic learning, would it not be better to admit that a minimum of drill is indispensable and to emphasize the fact that our technique for drill should be perfected and made pleasanter through greater individualization in the methods of drill? By abandoning these and similar hypocrisies and admitting the truth we will strengthen, not weaken, the movement for the adoption of the activity school, for the activity school has nothing to hide.

5. Lastly the activity school would gain a great advantage if teachers would become more conscious of their profession as an art. Every profession has a body of doctrine on which it rests; this is the scientific basis for the profession although as science such basis—e.g. the "science" of jurisprudence or the "science" of theology—may often be suspect. It is so with teaching; our basic "sciences" cannot really be regarded as sciences at all, and it is quite likely that many tenets of our pedagogical creed will be

altered as psychology advances in the direction of scientific knowledge. But the art or technical side of our profession will remain, and, with the adoption of the activity school, will become of increasing importance. The activity school, by emphasizing the primacy of pupil self-activity as a principle of teaching, has tended to limit the importance of the scientific basis for pedagogy. But it has at the same time enhanced the importance of the teacher as an artist. He must exercise authority without making the pupils aware of it; he must manipulate the learning process so skillfully that the pupil is unconscious of the part the teacher plays; he must be an artist, so consummate in his art, that his effects are apparently achieved effortlessly and spontaneously. The activity school, far from making the teacher's task a sinecure, has called upon the teacher for artistic skill of the highest order. But that it is worth the effort is the sincere conviction of all who believe that the activity school has reason to take its place as the form of general education in our times.

APPENDIX

BIOGRAPHICAL SKETCH OF EDUARD BURGER¹

Eduard Burger was born March 5, 1872 in Niederlichtenwalde, a tiny village in German Bohemia, just south of the Saxon frontier. His father, who was the principal (*Oberlehrer*) of a small country school, was Tyrolese in origin; his mother was of Westphalian descent. The boy early determined to follow in the footsteps of his father, and studied in the local Teachers' Academy at Leitmeritz. After he had received his first license as public school teacher, he studied privately to equip himself for the secondary-school license, which at that time was given in one of several subject matter groups—much as promotion licenses are given in New York City. Young Burger qualified in three groups—in the social science group, which included German language and literature, history and geography; in the science group, which included “pure” mathematics, natural history, physics and chemistry; and in the mathematical-technical group, which included applied mathematics, descriptive geometry, drawing and (of all things!) penmanship. After passing his final examinations at the Gymnasium, he continued his special studies in pedagogy, philosophy, Germanics, history and geography in various universities—Innsbruck (Tyrol), Griefswald (Pomerania), Jena and Prague. From the last-named institution, he was graduated in 1913 as the first Austrian doctor of philosophy in pedagogy, writing, as his doctoral dissertation, on “Activity (work) as a psychological and pedagogical principle”—*Die Arbeit als psychologisches und paedagogisches Prinzip*.

He began his career in the early 1890's as an elementary school teacher and later taught in the secondary schools of various Austrian provinces—first in his native Bohemia, then in Triest, later in the Steiermark. Stuhlfarth says that Burger served for two decades as professor at the Imperial Training Institution for Teachers at Innsbruck, but he doesn't give

¹ Taken largely from B. Stuhlfarth, *Vom Werden der Arbeitsschule*, Osterwieck, Leipzig; 1922, Verlag Zickfeldt.

exact dates. However, Burger must have begun his service at Innsbruck before 1903, for in that year he published his *Wegweiser fuer den Unterricht in der deutschen Rechtschreibung*² as professor at Innsbruck. The exact date when Burger left Innsbruck to enter the Ministry of Education in Vienna is also not known; it undoubtedly was in 1919 or 1920, probably the latter, because Otto Gloeckel became Minister of Education in 1919 after the close of the war, and it must have taken some time for him to reorganize the entire department and to incorporate into it the Division for School Reform, in which Burger served. Burger, therefore, served at Innsbruck from about 1900 to 1920.

These were his most active years as pedagogue. He taught at various times almost all the subjects of the curriculum in the departments of psychology of teaching, logic, methodology, and history of education. At the same time he took a leading part in the guidance that was offered to all students as part of their professional training. During these twenty years, also, he was prominent in movements seeking to improve teaching efficiency among the teachers of his province, Tyrol, through lectures, by attending meetings and conferences, and by contributing to local pedagogical publications. He was constantly being sent by the highest provincial educational authority—the Provincial School Board—to important pedagogical meetings as councillor and representative from Tyrol. For example, the basic Austrian school law of 1869, which had been opposed for more than two decades by the naturally conservative people of Tyrol, was interpreted and applied by him with skill and diplomacy. He played an important advisory part in the educational-legal program culminating in the Tyrolean School Law of 1910, which defined the legal status of the teacher and of the teaching profession. Lastly, he was influential in the formulation and promulgation of various decrees of the educational authorities for coordinating and systematizing school procedures within the province.³ But in spite of all these labors, and in addition

² *Guide in the Teaching of Spelling.*

³ Some of these decrees dealt with the following topics: a decree to reform the teaching of the vernacular; a decree for the adoption of a new spelling syllabus in 1902; a decree for proper placement of the teaching of German and Latin scripts; a decree dealing with the

to carrying his full teaching program, Burger found time to write many significant articles which appeared in educational and lay publications. Through these writings he attracted considerable attention to himself, not only in local pedagogical circles but also in educational circles beyond the frontiers of his home province. As a consequence, he was offered and accepted in 1916 the editorship of the oldest Austrian educational periodical—the *Oesterreichischen Schulboten*, founded 1850. Upon assuming the editorship, he changed the name of the magazine to *Monatshefte fuer paedagogische Reform*, thereby indicating clearly what he intended to make of the publication.

Before considering Burger's work as editor of the outstanding educational publication in Austria, it would be of interest to note some of his earlier writings. No attempt will be made at this point to give a critical estimate of their value, as these matters are dealt with elsewhere; the purpose at present is merely to cite them as examples of Burger's activities and as events which are of importance in an account of the author's life.

Burger's first published work appeared when he was only twenty years of age. This was his *Eine Sozial-paedagogische Studie ueber Erziehung und Unterricht*. The little monograph attracted sufficient attention (1892) to warrant subsequent editions; and in its third edition, 1910, Innsbruck, it appeared as *Sozial-paedagogische Hochziele der deutschen Schule*—“The Chief Sociological aims of the German Educational System.” It was, at the time, a pioneer work in the new field of social pedagogy and won for the author the Diesterweg pedagogical award.

After several minor publications in juvenile and youth magazines, he wrote, 1895, a pedagogical and historical account of the Triest school system, entitled *Das deutsche Staatsschulwesen Triests im Spiegel der Geschichte*. Shortly afterwards he was transferred from Triest to Marburg in the Steiermark, and while there became one of the chief contributors to a four volume work, under the editorship of Concillor F. Frisch, which, under the title of *Einfuehrung in das Lesebuch* (Wien, Leipzig, 1918), *Introduction to Elementary Reading*, was the question of school slate versus notebook. Cf. Stuhlfarth, *Vom Werden der Arbeitsschule*, Osterwieck-Leipzig, 1922.

mentary Reading, served as a sort of manual in the pedagogy of beginning reading according to the then still popular formal steps of the Herbart-Ziller-Rein pedagogy, as practiced in the best schools of Austria and Germany. It is interesting to note that Burger himself later became one of the most powerful educational forces for discarding these formal steps in the teaching process.

Sometime after 1898, as we have seen, he became Professor at Innsbruck and published, 1903, his *Guide to the Teaching of Spelling—Wegweiser fuer den Unterricht in der deutschen Rechtschreibung*. Burger was much under the influence of Lay at this time, and his *Guide to the Teaching of Spelling* naturally invites comparison with W. A. Lay's similar work which appeared in 1896.⁴ This is no place for detailed comparison, but it might be mentioned here that Burger carries Lay's work out to a more advanced position, and lays down the fundamental principles of spelling instruction through which the pupil is enabled to master (German) spelling pretty thoroughly in his first four years of instruction. Burger returns to this work and incorporates its findings in his capital work—the *Arbeitspaedagogik*—and as late as 1933⁵ we find him still advocating those principles of pedagogy in the teaching of spelling which he deduced in his 1903 monograph.

In 1907 Burger published another didactic and methodological study under the title *Die Skizze im Naturgeschichtlichen Unterricht*⁶ (Freehand Drawing as an Aid in the Teaching of Natural History). In this monograph he brings out an idea that he later developed more fully, namely, that sketch drawing is, like oral speech, a kind of language particularly adapted for communicating ideas of spacial relationships. He first shows how useful this language of the hand can be in the teaching of natural history; then he indicates how it can be similarly useful in the teaching of other subjects.

Finally there remain to be noted two quasi-official works by Burger. One of them is the monograph entitled *Die Tiroler Landesschulgesetze vom Jahre 1910* (Tyrolese School

⁴ W. A. Lay, *Fuehrer durch den Rechtschreibunterricht, gegründet auf psychologische Experimente*, 1896, Quelle u. Meyer, Leipzig.

⁵ Das Geheimnis des Erfolgs in Rechtschreibunterricht, in *Die Quelle*, 1933, Vol. VI.

⁶ Innsbruck, 1909.

Laws of 1910), which has already been mentioned. Undertaken at the request of the authorities, it is a unique educational study along historical, logical and statistical lines of the basic Tyrolese school law, which the study seeks to explain and justify to the people. It is intended not only for the pedagogical profession but also for the layman. It traces the origin of the law, explains its content in the light of a stated philosophy of education, and characterizes the point of view of this law in relation to other school laws of the Federal (Austrian) Government. It contains a summary of the school laws of other states of the Empire, and, from the financial side, it summarizes in tabular form the economic standing of the teaching profession in 1910 in Austria. . . The other quasi-official writings of Burger during this period of his professorship at Innsbruck consist of his contributions of the German language part of two German-Italian language courses approved for use in the schools of the Ladino. One of these series was prepared by P. Detomaso and R. Antonioli in two volumes, published in Vienna in 1906 and 1907; the other series, called *Corso di Lingua Tedesca*, by G. Defant, was also in two volumes and appeared in 1902 and 1906 in Triest. Both courses were intended for the Ladino, a people who inhabit the southern part of Tyrol. They are probably Celtic in origin, and are the remnant of a conquered tribe of the times of the Roman Empire. Their language is related to the Rhotoromanic of Switzerland and is a derivative from old Latin. In the days of the Austro-Hungarian Empire, instruction in the schools of the Ladino was bi-lingual—Italian and German.

The next publication of Burger in chronological order is his chief work—the one that contains his significant and unique contribution to education and on which his fame as an educator will rest. He had been working upon his *Arbeitspaedagogik* for many years, gathering material for this history of the activity principle in education from many sources. The date of publication was unfortunate, coming on the very eve of the outbreak of the war, and this undoubtedly was the reason why it made no greater stir in Europe than it did. Indeed it was allowed to slumber without having had any appreciable effect until 1923 when a second, enlarged edition was issued. Much water had flowed

under the bridge since 1914; the author took cognizance of the changes that time had brought about by adding considerably to his earlier edition, but so skillfully is this done that the 1923 edition is in no sense a book with an added portion, but rather an integrated and unified pedagogical work of art.

Burger's *Arbeitspaedagogik*⁷ is the work to which we shall have to make constant reference, and in considerable detail, if we would find out what Burger's contributions to education are and what value they may possess. The book contains a definitive summation of Burger's educational ideas and has served as the basis of the present study. It was highly regarded from the first, for the report by Dr. Karstaedt, Director of the Educational Ministry, noted in the midst of the war, in 1915, that: "(This book) has made activity pedagogy synonymous with Burger's *Arbeitspaedagogik*."⁸ Stuhlfarth calls the book the "Bible of the activity school."⁹

In 1916, as we have seen, Burger became editor of the *Monatshefte fuer Paedagogische Reform*, as the old *Oesterreichischen Schulboten* was renamed. There followed difficult years of editorship in the midst of a war-mad world. Yet during these hard times, when money for any but war purposes was well nigh impossible to procure, when peoples' passions were inflamed to the uttermost, he managed to keep his feet on the ground, and, in the pages of the *Monatshefte* reminded his readers that the war, important as it was, must some day give way to peace, and that it would then become the task of education to reconstruct a world in which all—the victors and the vanquished—would find it possible to live in amity. In his first article as editor of the magazine, he declared his belief that only through drastic reforms would education be able to perform this peacetime work of rebuilding the post-war world, summarizing and outlining his program under the title *Was wir wollen; was wir sollen* (What we would do, and what we should do); and he stuck to this program faithfully. Then, when the Austria in which he had grown up collapsed about his ears, he greeted the new day that had come without recriminations but with courage

⁷ *Arbeitspaedagogik—Geschichte, Kritik und Wegweisung*, 1914 and 1923. Leipzig u. Berlin; Verlag Wilhelm Engelmann. XV, 716.

⁸ *Paedagogischen Jahresbericht*, 1914—1915, Berlin, p. 325.

⁹ Stuhlfarth, *Vom Werden der Arbeitsschule*, Osterwieck-Leipzig, 1922.

and hope. In an article entitled *Neue Zeit—unsere Zeit*¹⁰ he spoke of the new conditions as "our" times, meaning that teachers would have to take a leading role in reconstructing society through education. He called upon his colleagues to turn their backs upon the irrecoverable past and to face the realities of the present and future so as to make the most of them.¹¹ Like most Austrians, after the partition of his country he hoped for Anschluss with Germany, for he realized that Austria was little more than a huge city, Vienna, deprived of its hinterland and resources, and incapable of sustained independent existence. So he wrote *Das ganze Deutschland soll es sein*¹² pleading for pedagogical unity with Germany even though political unity had been denied. And when Otto Gloeckel undertook the work of rebuilding the Austrian school system, he hailed the new minister of education as a practical school teacher, not a bureaucrat, and wished him Godspeed and the cooperation of all educators in Austria.¹³

Gloeckel's task on assuming office in 1919 was one of tremendous difficulty. In a ruined and bankrupt country, one seventh of its former size, he found an educational system with antiquated and neglected school buildings, schools without proper teachers, no ways of training new teachers, lack of material, equipment and funds, antiquated curricula, types of schools that could not be coordinated, and schools at different levels that could not be articulated. These were only the most pressing of the major problems to be met. To bring order out of this chaos, he created the "Division for Educational Reform," which formulated the basic principles of the new education in Austria. In 1920, Dr. W. Kammel suggested that a separate seminar for the special purpose of studying *Arbeitspaedagogik* (activity pedagogy) should be established in the Federal Teachers' Academy for Lower Austria. By assuming the chairmanship of this seminar, Burger was brought into the government, leaving Innsbruck for Vienna in 1920.

¹⁰ *Monatshefte*, 1919, p. 3 ff.

¹¹ Vom Gestern ins Morgen, *Monatshefte*, 1919, p. 89 ff.

¹² *Monatshefte*, 1919, p. 329.

¹³ "Der Volksschullehrer als Unterrichtsverweser," *Monatshefte*, 1919, p. 89 ff.

Burger's part in this work of rebuilding the Austrian school system naturally grew to great proportions when once the Division for Educational Reform had determined to rebuild Austrian schools along activity lines. Legally the Division had only an advisory capacity, and, at the beginning, Burger was merely one member of this division. But he was soon given better legal status by being named Federal School Inspector, and assigned as consultant and liaison officer to the Division for Legislative and Administrative (school) Matters. As such, he was able to formulate into appropriate legislation the various suggestions of the Division for Educational Reform.

As Federal Inspector of Education attached to the School Board for the city of Vienna, Burger's initiative, careful management and effective cooperation with President Gloeckel brought about a complete reformation of the educational system of a great city, and made it, with the assistance of Finance Councillor Breitner, who placed considerable sums of money at the disposal of the educational authorities, an educational Mecca for all Europe.¹⁴ As chairman, or leader, of the seminar on activity pedagogy, he enlisted the voluntary services of some seven hundred teachers interested in experimental pedagogy.¹⁵ The purpose of the seminar was twofold: first, to test out new methods and establish experimentally new norms of procedure, and, second, to function as a continual stimulus to other teachers toward untiring self-improvement in pedagogic effectiveness.¹⁶ In 1922, only two years after its modest beginning as a seminar for the investigation of the effectiveness of activity pedagogy, this Academy was placed on an equal footing with the University and was renamed the "Pedagogical Institute of the City of Vienna," Dr. Burger, Dozent in the chief pedagogical subjects—philosophy of education, general methodology, and history of education—retaining activity pedagogy as his special field. The

¹⁴ Cf. i.a. Schulreform in Oesterreich, Clostermann-Heller-Stephanie: *Enzyklopädisches Handbuch des Kinderschutzes und der Jugendfürsorge*, II Edition, Leipzig, 1930, p. 671 ff.

¹⁵ As a result of his work in connection with experimental education, Dr. Burger was honored by the President of Austria with the title of Hofrat.

¹⁶ Cf. an article: "Arbeitspaedagogische Forschung in der Oesterreichischen Schulreform," *Die Quelle*, 1929, p. 367 et seq.

Institute remained simply a graduate school for advanced study by full-fledged teachers until 1925, when an undergraduate department for the training of prospective teachers was added, offering courses, at university level, in the various pedagogical fields. Dr. Burger remained as head of the Institute and supervised the practice-teaching as well as the theory departments.

We have already noted that when the *Oesterreichischen Schulboten* became the *Monatshefte fuer Paedagogische Reform* under Burger's editorship in 1916, he announced that his program as editor would be to counteract the debasing effect of the war psychosis upon all education, and to erect and publicize an inclusive program for pedagogical reform which would give content and direction, after the war, to the hoped-for revival of interest in education. Now, in 1922, simultaneously with the creation of the Pedagogical Institute of the City of Vienna, the *Monatshefte fuer Paedagogische Reform* changed its name for the second time. It became *Die Quelle*, and it placed itself in the service of the reform movement. It reflected the problems of life and education and the many-sided cultural interests of the city of Vienna, first through the erection of many new "departments" for respective special subjects, such as art, music, health education, etc., and later through the establishment of what might be called daughter publications. So arose *Die Natur; Physik und Chemie; Voelkerkunde* (a kind of human geography); *Eos*, which was devoted to the problems of curative pedagogy; and *Das Bild im Dienste der Schule*. *Die Quelle* attracted contributors not only from Austria, but from foreign parts as well, and soon became one of the leading European educational publications. The close connection between *Die Quelle* and the reform movement in Austrian education is clearly brought out by a series of 53 pedagogical manuals, each dealing with a specific educational problem, and together known as the *Quellenbuecherei*, which Burger during these years issued in collaboration with School Councillor R. Rothe. Similarly, with Councillor V. Fadrus of the Austrian Ministry for Education, Burger issued another series of 81 little volumes in specific educational problems called collectively the *Lehrerbuecherei*. In all this work, as Federal Inspector of Schools, as head of the Pedagogical Institute of

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the City of Vienna, as editor of *Die Quelle* and as writer of pedagogical leaflets for guidance of teachers in the new pedagogy, Burger followed the principles which he had derived, elaborated and applied in his *Arbeitspaedagogik*. Activity pedagogy, along lines indicated by Burger in his capital contribution to education, became the theoretical basis for the Viennese educational reforms.

Back in 1918, while he was still professor at Innsbruck, but after he had become editor of the *Monatshefte*, in the darkest closing days of the war, Burger had published a study of the origins of experimental pedagogy. He calls this study *Die Experimentelle Paedagogik in ihrer Entwicklung zur Neu-deutschen Paedagogik*¹⁷ (*Experimental Pedagogy and its Development into General (German) Pedagogy*). In this work he establishes on historical grounds the fact that not Meumann but Wilhelm A. Lay should be regarded as the father of the experimental movement in pedagogy.¹⁸ He traces the growth of experimental pedagogy, from the study of single teaching techniques, through method-wholes, into the examination and testing of entire principles of education. It thus has become, according to Burger, not merely a subordinate part of education, but, by extension into all fields of pedagogy, a universal or general educational system. We shall see how later, in his own *Arbeitspaedagogik*, Burger finds that activity pedagogy should be regarded as the synthesis of diverse educational tendencies—a role which he, in 1918, was willing to ascribe to the work of Lay and his followers.

In 1923, Dr. Burger simultaneously received invitations from two famous universities to become Professor of Pedagogy—from Jena, where he would have followed Rein, and from Prague as successor to Willmann-Toischer. But he was unwilling to leave uncompleted the work that he had begun in Vienna—work in which he was sincerely interested—so he declined both invitations. He stayed on at Vienna until 1932, when he became sixty years of age; and, as this was the compulsory retirement age established in Austria, he retired at that time from active service as Federal School Inspector. But in order to retain his efforts and talents in the

¹⁷ Vienna and Leipzig, 1918. Verlag, A. Pichler's Wittwe u. Sohn.

¹⁸ Cf. Peyser, Nathan: *W. A. Lay, Pioneer in the Field of Experimental Education*, Ph.D. Thesis, N.Y.U., 1914, pp. 88.

service of democratic education, the Viennese Senate designated him as their representative on the Board of Education. He also was allowed to retain his post as Dozent at the Pedagogical Institute, likewise in the Academy for Music and Art, his editorship of *Die Quelle* and associated pedagogical organs, and his position as chairman of several commissions for Health Education. However, in 1934 the parliamentary democratic form of government was replaced by the authoritarian regime of Dollfus, and Dr. Burger withdrew completely from public life. He bade farewell to public life in an article entitled *Paedagogia Perennis* which was published in the *Paedagogischen Fuehrer*—an ominous new name for *Die Quelle*. In his quiet retirement in Vienna, he began writing another pedagogical book which he foreshadowed in his farewell.

Soon thereafter came the inclusion of Austria into the German Reich. The present writer heard nothing from Dr. Burger until the middle of November 1938, when he learned, through a third party who had visited the Burgers in Vienna, of their desire to leave Austria and, if possible, to come to the United States to live. The explanation of this otherwise singular intention in a gentleman full of years and honors is that Mrs. Burger is of the Jewish race. However, Dr. Burger was not destined ever to see America, for he died of a long-standing kidney complaint on December 2, 1938 in Vienna.

From this brief account of a very busy and useful life, we can see how Dr. Eduard Burger became the Nestor of activity education, not only in his native Austria, but also, as a result of the signal success of the program in Vienna, in all Europe. Born into a teacher's family, early manifesting an inherited interest in pedagogy, he began his life work before the age of twenty, and acquired a fund of experience which, for diversity and manysidedness, it would be hard to duplicate. He taught on elementary, intermediate, secondary, and university levels; his pupils were of all ages and conditions; his pedagogical interests and subject matter included practically everything in the curriculum. To this varied experience, he brought a thorough scholarship and a capacity for work in many fields. When the war brought the monarchy to an end, when it became necessary to rebuild from the ground up an educational system that had become out-

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moded and dilapidated, Dr. Burger became the man to do the work. His varied experience, his deep knowledge and broad scholarship, but, above all, his temperamental gifts made the success of the activity schools under his guidance an assured fact.

NOTES

CHAPTER I

1. Ferriere, Adolphe : *The Activity School*, translated by F. Dean Moore and F. C. Wooton, New York, 1927, John Day Co., Inc.

2. Ferriere, Adolphe : *The Activity School*, pp. 9-10, 13.

3. Eduard Burger died in Vienna, December 2, 1938. See Appendix for a brief sketch of his life.

4. John Dewey : *Experience and Education*, New York, 1938, p. 116. This and subsequent quotations are made by permission of The Macmillan Company.

5. In modern times, of course. For reasons of space limitations, it will be impossible to consider primitive education, which was almost wholly activity education; nor Athenian and Spartan education, where activity received the major emphasis. There are also many examples of activity procedures in mediaeval education.

6. Erhardt Weigel (1625-1699) differed somewhat from Rousseau by mentioning *all* the senses, all of which he would train, and in regarding pupil activity as an expression of the soul. . . Like his great contemporary, Comenius, Andreas Reyer (1601-1673) stressed object teaching and pupil activity, and anticipated Rousseau in advocating a curriculum based largely on nature. . . John Locke (1632-1704) suggests manual training, but as his education is specialized for the upper classes, he advocates manual training not for its intrinsic value, but merely because it is conducive to good health. . . August Franke (1663-1727) in his *Paedagogium* increased the number and variety of subjects of manual training, and applied the principle of individualization of instruction by advocating different forms of manual training for boys and girls. Similarly the scope of manual training was widened by Fenelon (1651-1715), who added household care and the care of children.

7. Other educators in this group of Rationalists were : Johann Basedow (1723-1790), Johan Campe (1746-1818), Bernard Blasche (1766-1832), Gottlieb Heusinger (died 1837), Franz Vierthaler (1758-1827), Franz Kinsky (1739-1805). . . Basedow recognized the importance of fatigue by advocating alternation in studies; Campe wanted children to begin their education with manual work and defer academic subjects until the age of thirteen; Blasche and Heusinger wrote a book, 1798, called *Die Familie Wertheim* which might be called the first book on activity pedagogy. Blasche had noted that activities may be natural or "cultural," and Heusinger had come close to expanding the term "activity" to include mental activity when, in searching for a psychological basis for manual training he found it in the instincts, and showed that, through manual training, not only thinking but aesthetic appreciation is fostered. . . Vierthaler was a follower of Kindermann, who stressed the moral value of manual training; Kinsky introduced manual training into

the military academy. None of these educators, however, contributed new matter to the activity school.

8. Fichte : *Die Bestimmung des Menschen*, 1800, p. 182.

9. Some of Pestalozzi's immediate followers are : August Herman Niemeyer (1754-1828), who emphasized the utilitarian and the moral. He suggested that showy subjects be abandoned in favor of practical, useful subjects ; therefore, he would teach trade subjects even in military schools so that the discharged soldier will have a means of livelihood. He also emphasized habits of industry to be taught in all schools, less for the sake of the products of the industry than for the moral training such habits would entail. . . Johann Sailer (1751-1832) stressed the moral value of activity teaching, but, like Pestalozzi, realized that the psychological basis for activity is an innate drive toward self activity. . . Vincent Edward Milde (1777-1853) says that manual training must be purposive and of practical utility. On the other hand, vocational schools must not be merely "houses of compulsory labor" but should become cultural institutions (*Bildungsanstalten*). . . Christian Wilhelm Harnisch (1787-1864) decries the utilitarian motive. . . Adolph Wilhelm Diesterweg (1790-1866), though a Pestalozzian, did not approve of activity schools, as he came under influence of the Herbartians as well as of Pestalozzi. He conceded, however, that manual training has a place in the curriculum, but that the intellectual subjects must take preeminence.

10. *Anschauung* — there is no word in pedagogical terminology which gives the full meaning. It means sensing an object in every possible way.

11. Frederick Benst (d. 1899) united mathematics with activity instruction. . . Karl Biedermann (d. 1901) would unite the school of learning and the school of doing, placed high sociological value on activity pedagogy, and warned the activity school that its special danger is that it degenerate into vocational education, maintaining that the activity school should not train for specific vocation but should give general skills ; he also advocated reduction of curriculum by removing much unnecessary matter. . . Konrad Michelson (d. 1862) emphasized the cultural values of the activity school.

12. Naas was the university in which sloyd activity education was first taught.

13. "Sloyd" means deftness of hand — manual dexterity. Its object is cultural rather than vocational ; self-reliance, assiduity, conscientiousness, respect for the dignity of work are its intended end products.

14. E.g., Reddie's School at Abbotsholme, founded 1899.

15. It is interesting to note, in passing, his similarity to Dewey in this respect.

16. Herbart's followers, though brilliant men in other respects, also have nothing to offer us with respect to the field of our investigation. Tuiskon Ziller (1817-1882) advocated manual training in what he called "*Neben Klassen*" — by-classes, classes of secondary importance. The main purpose of education was cultural, and this aim could best be fulfilled by emphasis on history and other social sciences — cf. Dewey, especially in *School and Society* — which would dominate the *Hauptklassen*, the chief, or most important, classes. There should be constant

correlation between manual training in the secondary classes and the instruction in the formal subjects, but manual training must always be in subordinate place. For pupils who are destined to earn their living through manual activity, such training becomes vocational and should be postponed to the twelfth or thirteenth year. . . Ernst Barth saw that through manual training concepts are constantly checked against reality; he, therefore, advocated placing manual training on a par with the other subjects. . . William Rein (born 1847-) who believed in the culture epoch theory, and who placed history in the central place in the curriculum, had the pupils in the manual training classes make models for history teaching — e.g., when the pupils were studying Egyptian civilization, the manual work would consist of the making of pyramids, obelisks, etc.—the influence on Dewey is obvious. In addition he valued manual training as a relief from intellectual study, and because modelling, a form of manual training, helps in getting accurate concepts. . . Otto Willman (1839-1920) appreciated manual training for its own sake. He advocated all round manual skill, calling it polytechnic, and claiming that much skill is not vocational, but cultural. But he apparently went even further than Ziller himself in subordinating the aims of the by-classes to those of the main-classes.

CHAPTER II

1. Educational "socialism" is a badly needed word; it would be useful, and save many an awkward circumlocution, if the term "socialism" could be divested, in discussions on education, of its politico-economic connotations.
2. The Germans call this the important principle of *Bodenstaendigkeit*. In this study we translate it as the principle of Differentiation.
3. The difference between narrow and broad social aims is stressed by Dewey. Cf. chapter XI of this study.
4. We cannot do more than mention the names of these educators. Kumpa subordinated manual training to geometry; Brueckmann to general mensuration; Springer to drawing and expressional geometry; Zeissig to what he calls *Formen Kunde*, the study of form, but which includes everything that can be taught by means of object lessons. (Zeissig stands out from the others in that he advocates this "Form and Substance" subject as the core of the curriculum); Hertel subordinated manual training to natural science.
5. There is no word to translate this expression. "General tinkering" comes closest to it. It means work with all kinds of materials together — cork, wood, wire, gum, paste, paper, or anything that you happen to have handy. Tinkering has the sense of repairing; *Basteln*, the idea of creating something anew out of make-shift materials.
6. Kerschensteiner, *Grundfragen der Schulorganisation*, 1910, Munich, p. 83.
7. Some of the less important educators who approach activity education from the social viewpoint are: Gerhardt Budde, who says that manual training should become a subject in all secondary schools; Hans

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Plecher who, strangely enough, pleads for a "child-centered" school, but who nevertheless is an educator who approaches his problem from the sociological viewpoint. The mystery is explained by the fact that when he says "child-centered" he means merely that the models which the child uses should be the products of children, and must be such as are found in the child's own life; Franz Weigl and Otto Eberhardt, both of whom accepted activity pedagogy as a method for a Christian religious educational system. Weigl was especially approved by the German Catechist Society which pointed out that charity, alms giving, etc., are forms of religious activity.

8. Gaudig's general position is supported by Joseph Kuehnel and Otto Schreibner. These in turn are related to G. Stiehler whose work forms a bridge to the aesthetic education of Jessen and Hildebrand.

9. Haufe : *Das Evangelium der natuerlichen Erziehung* — Reichenberg — Leipzig, 1904, p. 60.

10. Other advocates of the activity school from the naturalistic point of view are : O. Frey and R. Seyferth placed pedagogical activity at the service of physics, and the natural sciences respectively. . . Edmund Neuendorff would teach mathematics in the workshop, chemistry and physics in laboratory, botany in field, wood, and school garden. . . M. Enderlin, who could also be mentioned as a psychologist of the activity school, is here included with naturalists because he makes natural science the core of the curriculum and would teach it in the open air. He speaks of working intimately with others in a natural setting and studying with them the phenomena of nature, as "the social factor" of a "natural method." . . Herman Lietz, former teacher at Reddie's school at Abbotsholme, is the founder of a similar "Home and Country" school, which has been widely imitated in Germany. All these "Home and Country" schools are under the influence of the naturalists in education, teaching in the open air, emphasizing nature as a subject, and, of course, utilizing the activity principle in their methodology. . . Closely related to these schools is that of E. Kapff who tried to retain the family as a pedagogical institution, putting that family in a "natural environment," that is, in the country. . . August Heyn makes gardening the central subject in the curriculum.

11. Other educators who did valuable work as organizers and publicists for the activity school are : Emil von Schenckendorff who in 1881 organized the German Society for Manual Training which is still active and which distributes its organ *Die Arbeitsschule*; William Rumpp who, before Loeweneck, prophesied that the activity school would not be an anti-learning school, but would fuse the learning school with the doing school; O. Seinig who, as principal in Charlottenburg (Berlin), realized that revolution in education is less satisfactory than evolution, and who proposed a gradual introduction of activity pedagogy into the traditional schools; Anton Herget who founded the publication *Creative Activity and Art in the Schools* in 1918; finally, the large group of writers who, convinced that all instruction must be reorganized according to principles of activity pedagogy, seek to further this step by writing tracts showing how each of the individual subjects of the curriculum may be overhauled and re-oriented according to activity psychology and

methodology. Their efforts resulted in a vast and generally useful literature of teaching methods.

12. Cf. Pinkevich, A. P., *Science and Education in the USSR*, G. P. Putnam's Sons, New York, 1935.

CHAPTER III

1. E.g., Rousseau, Locke, Franke, Zwingli, Rabelais, Basedow, Salzmann, Blasche, Schwab, Barth-Niederney, Willmann.

2. The psychological basis here posited follows the system of Franz Brentano.

3. "Nihil est in intellectu quod non prius fuerit in sensu." Comenius in *Didactica Magna*.

4. Hodegetic : giving ethical and moral guidance ; character building.

CHAPTER IV

1. Pierre Curie insisted throughout his life that the true scientist must live an anti-natural life. Cf. Eva Curie : *Madame Curie*, translated by Vincent Sheean, 1937. Doubleday Doran, Garden City, pp. 412.

2. Doing, Sensing, Thinking.

3. Ratio, Oratio, Operatio.

4. We will see later that this same criticism applies to Dewey.

CHAPTER V

1. Franz Brentano : *Vom Ursprung sittlicher Erkenntnis*, p. 29 ff.

2. Matthew 5 : 48.

3. Including such giants as Herbart, Froebel, Rein, Scherer, Kerschensteiner, Lay, and others.

CHAPTER VII

1. Cf. Franz Brentano, *Die Klassifikation der psychischen Phänomene*, Leipzig, 1911 ; also Burger, "Franz Brentanos paedagogische Bedeutung," in *Monatshefte*, Vienna, 1918, special issue.

2. Examples of differently motivated judgments :

a. This figure (Δ) is a triangle. Here the judgment is motivated by a concept — the concept of triangle. It is valid.

b. "Hence the sum of the angles of a triangle equals 180 degrees." This conclusion, or any Euclidean conclusion drawn after going through the logical reasoning on which the conclusion is based, is an example of a judgment motivated by another judgment. It is valid.

c. "He is a good boy at heart" says the mother of the hardened criminal. Her sentiment may be creditable to her own heart, but her judgment is not valid because it is motivated by the interest-will.

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3. The study of the totality of environmental factors surrounding the child. Perhaps "Home and Life" may be preferred as the name of this undifferentiated course.
4. Assuming that the pupil has studied Pittsburgh first.
5. Laplace's third and sixth laws of probability.
6. Hugo Gaudig : *Didaktische Praeludien*, Leipzig, 1909, p. 38.

CHAPTER VIII

1. Cf. pp. 34-36.
2. Cf. pp. 38-40.
3. Cf. discussion of positive hodegetics, pp. 72-75.
4. Burger : *Die Skizze in naturgeschichtlichen Unterrichts*, 2nd Edition, Brixen, 1909, pp. 11, ff. The subject dealt with is nature study, but the application to geography instruction is patent.
5. William A. Lay : *Experimentelle Didaktik*, Leipzig, 1920, Volume I, pp. 88 et seq.

CHAPTER IX

1. Ernst Weber: "Freiheit in der Erziehung," in *Kunstwart*, Vol. XXIV, Munich, 1910-1911, p. 354.
2. Ernst Weber : "Werdendes Leben," in *Kunstwart*, Vol. XXV, Munich, 1911-1912, p. 389.
3. Cf. pp. 167-178, in which drawing is discussed as a form of technical heuristics applicable to the teaching of geography.
4. Cf. Burger's account of the interplay between the individual and the environment in his examination of W. A. Lay's contribution to experimental education, found in Burger's *Die Experimentelle Paedagogik in ihrer Entwicklung zur neu-deutschen Paedagogik*, Vienna, 1918.

CHAPTER X

1. E.g. Bode, Child, Moore, Finlay, etc.
2. Cf. table, "Classification of Types of Activity Programs as outlined by Bobbitt, Olsen and Beatty." P. 38, in J. Wayne Wrightstone, *Appraisal of Newer Elementary School Practices*, Bureau of Publications, Teachers College, Columbia University, New York, 1938. Pp. 221.
3. *D&E*, p. 5.
4. *D&E*, p. 7.
5. *D&E*, p. 9.
6. Italics not in Dewey.
7. *D&E*, p. 16.
8. *D&E*, p. 22.
9. *D&E*, pp. 23-24.
10. *D&E*, p. 47.
11. *Ibid.*
12. *D&E*, p. 48.

13. Especially in *Experience and Education*, Chapter III.
14. *D&E*, pp. 52-54.
15. *D&E*, pp. 54-56.
16. *D&E*, p. 62.
17. *D&E*, p. 62.
18. *D&E*, p. 375 ff.
19. *D&E*, p. 379.
20. Funk & Wagnalls : *New Standard Dictionary*, unabridged.
21. Funk & Wagnalls : *New Standard Dictionary*, unabridged.
22. Burger : Franz Brentanos Pedagogische Bedeutung in *Monatshefte fuer Paedagogische Reform*, Special Edition, 1918, Vienna.
23. "Die Hauptsache ist die Betaetigung des Ich am Ich fuer das Ich," — Burger in an article on *Arbeitspaedagogik* in Clostermann-Heller-Stephanie, *Enzyklopaedisches Handbuch des Kinderschutzes und der Jugendfuersorge*, Leipzig, 1930, p. 40.
24. *D&E*, p. 378.
25. *D&E*, p. 379.
26. *D&E*, p. 379.
27. *D&E*, p. 386.
28. *D&E*, p. 383.
29. *D&E*, p. 384.
30. *Ibid.*
31. *D&E*, p. 384.
32. *D&E*, pp. 386-387.
33. *D&E*, pp. 389-391. The same subject is more fully treated in *The Quest for Certainty* in which these and other dualisms are represented as resulting from man's unfortunate, yet understandable, desire for certainty in the philosophic, ethic and psychic realms.
34. William T. Feldman : *The Philosophy of John Dewey*, 1934, Baltimore, Johns Hopkins University Press, p. 103.
35. *D&E*, p. 398.
36. *D&E*, p. 400.
37. *D&E*, p. 400. Cf. also Chapter III, p. 23 et seq. of *Experience and Education*, in which continuity is discussed as one of the two criteria of experience. The other criterion, interaction, arises out of the nature of continuity.
38. *D&E*, p. 401.
39. *D&E*, p. 402.
40. *D&E*, p. 406.
41. *D&E*, p. 408.
42. *D&E*, p. 409.
43. *D&E*, pp. 414-415.
44. *D&E*, p. 415.
45. *D&E*, p. 417.
46. Not quite. Dewey admits, especially in *Experience and Education*, that there is a place for the peremptory command ; this occurs when the child must be protected from the inevitable consequences of a wrong act.
47. *D&E*, Chapters 5-9.
48. *D&E*, p. 63.

49. *D&E*, p. 64.
50. *Ibid.*
51. *D&E*, p. 65.
52. *D&E*, p. 65.
53. *D&E*, p. 66.
54. *D&E*, p. 69.
55. *D&E*, pp. 70-79.
56. *D&E*, p. 76.
57. *D&E*, pp. 78-79.
58. *D&E*, p. 81.
59. Cf. *School and Society*, Chapter I.
60. *D&E*, p. 85.
61. *D&E*, p. 86.
62. progressive education ; not "Progressive Education."
63. *D&E*, pp. 89-90.
64. *D&E*, p. 92.
65. Dewey : *Experience and Education*, p. 116.
66. *D&E*, p. 96.
67. *D&E*, p. 100.
68. *D&E*, p. 101.
69. *D&E*, p. 102.
70. *D&E*, pp. 102-106.
71. *D&E*, pp. 106-108.
72. *D&E*, pp. 108-115.
73. "We are not concerned with finding an aim outside of the educative process to which education is subordinate. Our whole conception forbids." *D&E*, p. 117.
74. *D&E*, p. 119.
75. *D&E*, p. 125.
76. *D&E*, p. 121.
77. *D&E*, p. 122.
78. *D&E*, p. 123.
79. *D&E*, p. 120.
80. *D&E*, p. 130.
81. *D&E*, Chapter IX, pp. 130-160.
82. *D&E*, p. 144.

CHAPTER XI

1. *D&E*, p. 193.
2. *D&E*, p. 194.
3. *D&E*, p. 195.
4. *D&E*, p. 196.
5. *D&E*, p. 197.
6. *Ibid.*
7. *D&E*, p. 198.
8. *D&E*, pp. 198-199.
9. *D&E*, p. 199.
10. *D&E*, p. 200.

11. *D&E*, p. 201.
12. *D&E*, p. 205.
13. *D&E*, p. 206.
14. *D&E*, p. 207.
15. *D&E*, pp. 209-210.
16. *D&E*, p. 150.
17. *D&E*, p. 151.
18. *Ibid.*
19. Chapter XI.
20. Chapters II and III.
21. *D&E*, p. 164.
22. *D&E*, p. 170.
23. *D&E*, p. 173.
24. *D&E*, p. 176.
25. *D&E*, p. 178.
26. *D&E*, p. 212.
27. *Ibid.*
28. *D&E*, p. 214.
29. *D&E*, pp. 214-215.
30. *D&E*, p. 216.
31. *D&E*, p. 217.
32. *D&E*, p. 231.
33. *D&E*, p. 221.
34. *D&E*, p. 225.
35. *Ibid.*
36. Burger's objection noted.
37. Cf. similar objections to the rigid program of the Swedish Sloyd,
p. 20.
38. *D&E*, pp. 231-232.
39. *D&E*, p. 234.
40. *Ibid.*
41. *D&E*, p. 247.
42. *D&E*, p. 244.
43. *D&E*, p. 246.
44. *D&E*, p. 255.
45. *D&E*, p. 257.
46. *D&E*, pp. 262-263.
47. *D&E*, pp. 267, 268, 269.
48. *D&E*, p. 279.
49. *D&E*, p. 281.
50. *D&E*, p. 291.
51. *D&E*, p. 292.
52. *D&E*, p. 294.
53. *D&E*, p. 307.
54. *D&E*, p. 301.
55. *D&E*, p. 302.
56. *D&E*, p. 305.
57. *D&E*, p. 306.
58. *D&E*, pp. 322-323.
59. *D&E*, p. 317.

60. *D&E*, p. 319.
61. *D&E*, pp. 319, 320, 321.
62. *D&E*, p. 321.
63. *D&E*, p. 321.
64. *D&E*, p. 334.
65. *D&E*, pp. 334-335-336.
66. *D&E*, p. 337.
67. *D&E*, p. 337.
68. *D&E*, p. 341.
69. *D&E*, p. 343.
70. *D&E*, p. 357.
71. Dewey: *Experience and Education*, p. 69.
72. *D&E*, p. 353.
73. Dewey: *Experience and Education*, pp. 70-73.
74. *Ibid.*, p. 77.
75. *D&E*, p. 353.
76. Dewey: *Experience and Education*, p. 55.
77. *Ibid.*, pp. 57-59.
78. *Ibid.*, pp. 64-66.
79. *D&E*, p. 352.
80. *Op. cit.*, pp. 66-67.
81. *D&E*, p. 354.
82. *D&E*, p. 357.
83. *D&E*, p. 358.
84. *D&E*, p. 359.
85. *D&E*, pp. 362, 364.
86. *D&E*, pp. 366-367-368.
87. *D&E*, pp. 368-369-370.

CHAPTER XII

1. e.g., *Cardinal Objectives in Elementary Education*. University of the State of New York Press, Albany, 1931. The six cardinal objectives upon which educators agree are to help every child: (1) to understand and practice desirable social relationships; (2) to discover and develop his own desirable individual aptitudes; (3) to cultivate the habit of critical thinking; (4) to appreciate and desire worth-while activities; (5) to gain command of the common integrating knowledges and skills; and (6) to develop a sound body and normal mental attitudes.

2. Mossman, Lois Coffey: *The Activity Concept*, New York, The Macmillan Company, 1938.

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L. *Die Lehrer Fortbildung.*

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